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IN SEARCH OF A FOOD POLICY

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SUMMARY REPORT OF THE
GOVERNOR'S COMMISSION ON FOOD

March, 1974

THE GOVERNOR'S COMMISSION ON FOOD

Gordon Cameron
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Jonathan Davis
Robert Eisenmenger
Mrs. Sharon Francis
John M. Fox
Mrs. Diane Fulman
Edward Gelsthorpe
Mrs. Eunice P. Howe
David Mann
Dr. George C. Matthiessen
Dr. Jean Mayer
Ms. Peg McConnell
Sidney R. Rabb
Ralph A. Roberts
Mrs. Conchita Rodriguez
Mrs. Barbara Skillin
Stephen Tavilla
William H. Tucker
Dean K. Webster

Ex Officio

Nathan Chandler
Charles H. W. Foster
Dr. Arless A. Spielman
Mrs. Mary B. Newman
John Verani
Dr. John Naegele
Jack Delaney

Miss Deborah Borda
Special Assistant to the Governor
Prof. Ray A. Goldberg, Chairman
Prof. Theodore W. Leed
Executive Director
Warren Shepard
Executive Assistant
Mrs. Ruth E. Nelson
Executive Secretary

TASK FORCES

GOVERNOR'S COMMISSION ON FOOD

Food Production and Supply

Chairman: Jonathan Davis
David Mann (after January 1, 1974)
Resource Leader: Henry B. Arthur
Members: Robert Cobb, Jr.
Charles B. Dolan
Dr. Robert Eisenmenger
Mrs. Sharon Francis
Ms. Peg McConnell
Dr. George Matthiessen

Labor & Economic Incentives

Chairman: Ralph A. Roberts
Resource Leader: Robert H. Forste
Members: Gordon Cameron
Ms. Peg McConnell
Mrs. Mary Newman

Transportation, Distribution, Storage and Logistics

Chairman: Dean K. Webster
Resource Leader: Wilbert A. Pinkerton
Members: Charles B. Dolan
Mr. H. Wakefield McGorrill
Richard Nickless
Mike Padnos
Wesley Tucker
William H. Tucker

Marketing

Chairman: John M. Fox
Resource Leader: Leonard M. Wilson
Members: Gordon Bloom
Alfred Oppenheim
Sidney Rabb
Gary Rose
Barbara Skillin
Stephen Tavilla
Dr. Harry Wildasin
Dr. Albert L. Wrisley



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Government Institution & Structures

Chairman: Edward Gelsthorpe
Resource Leader: Ezra Merrill
Members: John D. Barrus
Paul Gitlin
David Mann
Mrs. Patricia Plummer

Food Prices & Consumer Policies

Chairman: Diane Fulman
Resource Leader: Mrs. Margot Kosberg
Members: Alan Ackerman
Mrs. Annie Brown
Mrs. Doris Curry
Mrs. Eunice P. Howe
Dr. Jean Mayer
Conchita Rodriguez
Jim Silverman
Barbara Skillin
Donald Stowbridge

SUMMARY OF RECOMMENDATIONS

Consumers

In order that all Massachusetts consumers can make well-informed food buying decisions, be assured of wholesome food and obtain an adequate diet, the following legislation, policies and programs are recommended:

1. The following steps by the Department of Welfare and the General Court to assure that all eligible households be given the opportunity to receive food stamps.
 - a. Establish a 15 member state-wide Food Stamp Board to monitor the implementation and on-going operations of the Food Stamp Program. The representation should consist of at least 50% program recipients, regionally selected, including Black and Spanish-speaking representatives, the Director of the Food Stamp Program, a nutritionist, and a representative from each of the following groups--Community Action Projects, retail food stores, banks, and the Cooperative Extension Service. The additional positions should be filled by representatives from groups deemed appropriate by the Board. It is the responsibility of the Welfare Department to provide all information needed by the Board. The Board shall meet at least once a month to review the implementation and operation of the Food Stamp Program. A paid staff person should be provided to act as liaison between the Department of Welfare and the Governor's Office.
 - b. Provide adequate training of all personnel, including volunteers, responsible for the certification of eligible households to insure prompt and accurate certification that assures fullest benefits and respects the rights of the recipients.
 - c. Assure certification of all eligible non-public assistance households by providing staff in the ratio of 1 full-time staff

Editorial
The American Medical Association is proud to have been selected by the National Board of Health to represent the medical profession in the National Health Council. This is a great honor and a reflection of the high regard in which the medical profession is held by the public.

It is the duty of the medical profession to cooperate with the government in the fight against disease and to do all that is possible to improve the health of the people. We are confident that the National Health Council will be a most effective agency for the promotion of public health.

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person/300 eligible households. If budgetary constraints prevent this ratio in paid staff, recruit, train and administer a volunteer component that provides an adequate number of trained volunteers to assure the certification of all eligible non-public assistance households.

- d. Use city and town officials to provide certification for non-public assistance recipients.
 - e. Provide outreach adequate to inform all eligible recipients using the Cooperative Extension Service and food stores to disseminate information.
 - f. Make surplus commodities available to those in need until they can be certified and included in the Food Stamp Program.
 - g. Legislative approval of the budget required to implement the Food Stamp Program.
2. Increase the fines for short weight and sanitary code violations and require the publication of lists of violators; provide for a judicial education program.
 3. Provide authority for the enforcement of unit pricing regulations to local sealers of weights and measures in addition to the Division of Standards.
 4. Reclassify or upgrade certain positions in state government where necessary to hire professionally qualified personnel for food-related programs.
 5. Develop and disseminate more timely and effective consumer information with respect to food prices and the use of food buying aids including nutritional labeling and unit pricing. Expand the role of the Cooperative Extension Service, the Consumers'

Council and the Department of Agriculture in consumer education and make more effective use of radio and television public service time.

6. Provide more extensive and effective nutritional education through designation of the Massachusetts Consumers' Council to collect and analyze data concerning the nutritional needs of consumers, coordinate nutritional education efforts and obtain the cooperation of public agencies, the food industry and advertisers in promoting better nutrition for the public.
7. Develop and enforce more stringent quality specifications for the School Lunch Program meals and utilize central kitchens for meal preparation when practical.
8. Develop opportunities for consumers in low-income areas to purchase food at prices that prevail in other areas through busing, food buying cooperatives and incentives for supermarkets to locate in low-income areas.
9. Regulations by the Department of Public Health to require retailers to use the Uniform Retail Identity Standards for fresh meat.
10. Request changes in federal guidelines for Title VII funds to supplement diets of the needy elderly through efforts of congressmen and state officials and request Elder Affairs Department to establish eligibility requirements for Meals on Wheels program.

Transportation, Storage, Processing and Distribution

In order that the costs of marketing food in Massachusetts are competitive and equitable and consumers are protected against food shortages and abnormally high prices the following policies and programs are recommended:

1. A national export and contingency reserve policy to assure the maintenance of minimum feed grain and basic food reserves with strategic storage

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DEPARTMENT OF THE HISTORY OF ARTS
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locations in each region based upon emergency needs.

2. Efforts by the Governor and the appropriate state agencies to do everything within their power before the Interstate Commerce Commission and other federal bodies to insure the retention of competitive rail systems both in New England and in routes leading to New England. Also, a careful review of the economic impact of the abandonments proposed by the Department of Transportation in the reorganization of the Northeast rail system.
3. Promote the development of additional receiving, storage and processing facilities for feed and food in Massachusetts through the cooperative efforts of public and private agencies.
4. Endorsement and support of a national rail car fleet by the New England governors and transportation officials.
5. Request revision of volume rail rate requirements by carriers and the Interstate Commerce Commission and encourage the use of volume rates by Massachusetts receivers of feed and food.
6. Support the efforts of the New England Feed Grain Council to obtain the approval of a more equitable rate structure from the Interstate Commerce Commission for feed grains shipped into New England.
7. Adequate fuel allocation for all food haulers and strict enforcement of price controls for fuel.
8. A comprehensive food service educational program to improve the skills of managers and employees, especially in public institutions.
9. The construction of regional solid waste disposal plants already authorized by legislation in Massachusetts.

Food Production

In order to protect and preserve our food production capability and encourage the utilization of our food production resources more fully the following legislation, policies and programs are recommended:

1. The creation of a cabinet level land use policy council with the responsibility for developing a comprehensive land use plan for the Commonwealth within three years; the plan to incorporate the agricultural preserve concept whereby a prescribed percentage of land in capability classes I, II, and III in each town must be reserved for agricultural use and the landowners reimbursed for surrender of the development rights.
2. Authorize and require the Department of Agriculture to issue permits for the agricultural use of state surplus land.
3. Establish a Marine Research Station on the South Shore to engage in research and development and pilot projects on the propagation and marketing of shellfish.
4. Federal legislation to create a National Labor Relations Act for agriculture to provide machinery for orderly collective bargaining between farm workers and farmers.
5. The use of federal manpower training funds to train workers for employment in agriculture in Massachusetts.
6. Request the Pesticide Board of the Department of Public Health to develop plans for registering certain pesticides for use in the State.
7. Encourage public and private agencies to adopt the University of Massachusetts plan for fertilizer use in 1974.
8. Request conservation district boards of supervisors to place top priority on the preparation of county agricultural land use capability maps.

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9. Efforts to foster home and community gardens and farmer's markets in metropolitan and suburban areas.
10. Request the Massachusetts Agricultural Experiment Station to undertake research to develop food crops with a higher nutritional content.
11. Regional support of the Studds-Magnuson bill to extend U.S. territorial jurisdiction of fishing grounds to 200 miles.
12. State programs that will increase the gross stock of Massachusetts fishing vessels.
13. Revision of state tax laws to permit an investment credit for individuals and partnerships engaged in agricultural production; to allow Sub-chapter "S" Agricultural Corporations to pass income through to shareholders without the income being subjected to a prior corporate tax; and, the option of income averaging for farmers and fishermen.

Government

In order to bring about central accountability for the food system in Massachusetts, to coordinate the food-related programs and activities of state agencies and to provide a mechanism for monitoring the food system and initiating action to implement the recommendations of the Commission, the following legislation is recommended:

1. Establish an office of Food Policy in the Office of the Governor that will be responsible for planning, evaluating and coordinating and recommending policies and programs necessary for the food system to operate efficiently and equitably in providing a wholesome and dependable supply of food to Massachusetts consumers. The Office shall submit an annual report to the Governor and to the clerk of the Senate and the clerk of the House of Representatives.

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY

REPORT OF THE
COMMISSIONERS OF THE
BOARD OF CHEMISTRY

FOR THE YEAR
1900-1901

CHICAGO, ILL.
1901

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THE FOOD PROBLEM IN PERSPECTIVE

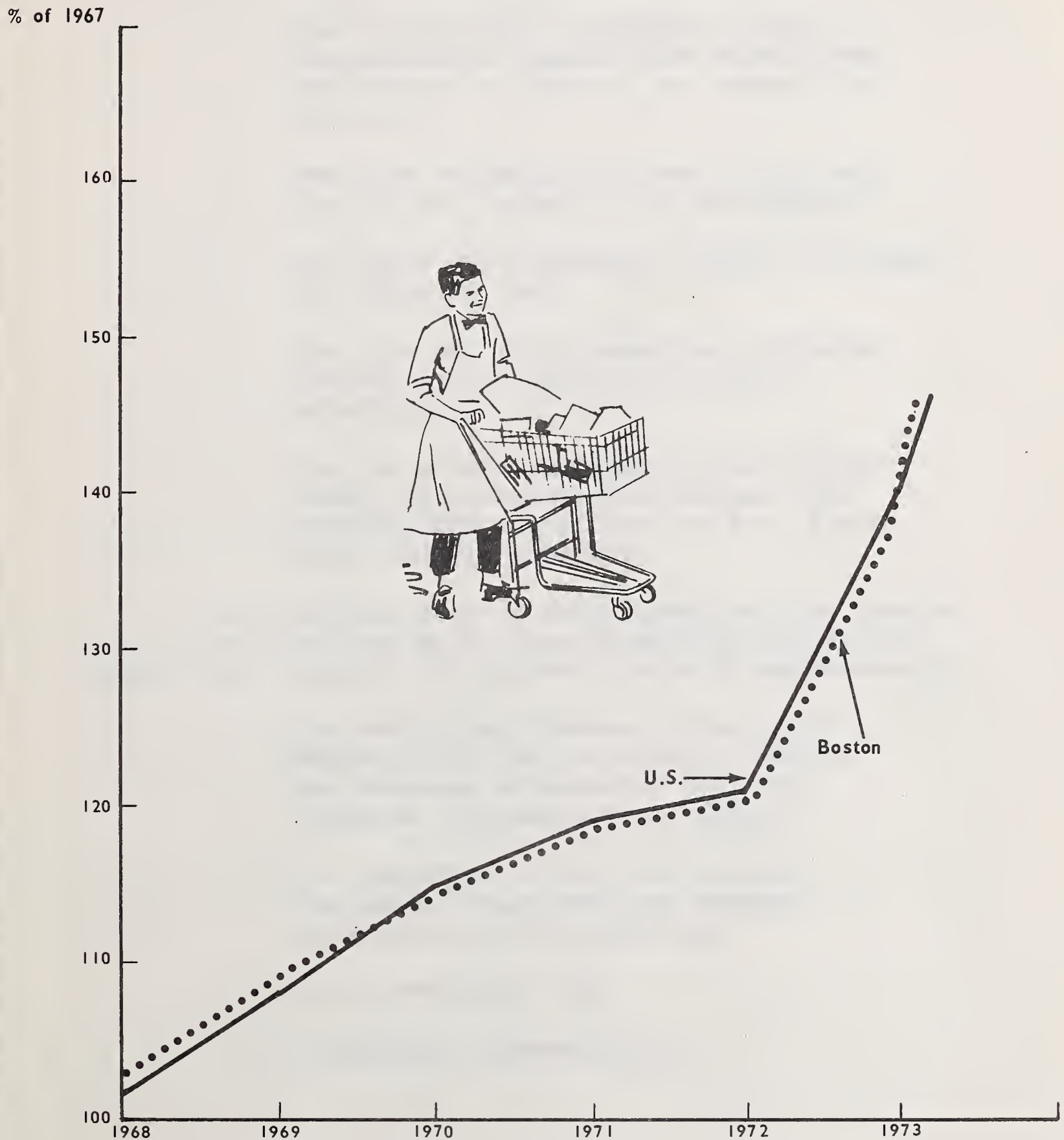
The year 1973 marked a fundamental change in the food situation in the United States. We moved from a problem of chronic surpluses of food to temporary shortages and rapidly escalating prices brought about by an increasing and more affluent world population that has achieved the purchasing power to compete with U.S. consumers for our food supply. The increased purchasing power of other nations was accompanied by poor weather and harvests worldwide and the policy decision of our government to export large quantities of grain.

As a result of world supply and demand conditions and inflationary pressures, food prices in the United States increased by 14.5 percent in 1973, about the same as the increase in Boston food prices (Figure 1). This was the largest increase in food prices in a quarter of a century. The percentage of income spent for food increased slightly from 15.7% in 1972 to 15.8% in 1973, reversing a 20 year downward trend. In addition, the actual quantity of food consumed per person declined by 2% due mostly to a reduction in the quantity of red meat and poultry consumed. Thus, it cost the average family in the U.S. over \$200 more for food in 1973 than 1972, and both the quantity and quality of the family diet was lower in 1973.

The Governor's Commission on Food was concerned with identifying the problems and opportunities relative to the food system in Massachusetts and with recommending actions necessary to assure all Massachusetts consumers an adequate food supply at equitable prices both now and in the future. In order to accomplish this objective the Commission addressed the following questions:

What is the effect of the food supply and price situation on consumers in Massachusetts?

Retail Prices for All Food in Boston and the U.S., 1968 to 1973, Annual Averages



Source: Bureau of Labor Statistics

Figure 1

Who is suffering hardships and how can the hardships be alleviated?

How do the costs of marketing food in Massachusetts compare with other areas and how can we improve our competitive position?

What are our major sources of food and what is the extent of our dependency?

How might our dependency affect the supply and price of food?

What are our food production resources and how can we utilize them more effectively?

How can government function more effectively in planning, monitoring, coordinating and regulating the food system in the public interest?

In analyzing each of these questions the Commission identified four major areas requiring action to assure the integrity of the food system in Massachusetts;

- (1) The stable performance of the food marketing system in terms of serving the consumer efficiently with an adequate, wholesome food supply;
- (2) The logistics of the food system including transportation, storage, processing and distribution;
- (3) food production; and
- (4) government accountability.

The recommendations that evolved from this analysis considered the problems, opportunities and contributions of consumers, marketing agencies and food producers. Detailed information supporting the recommendations will be contained in the Task Force reports. This summary merely highlights the major findings of the Commission.

Market Performance

It appears that food costs are higher in Massachusetts than in most other states. Budget data show that food costs for families and retired couples in Boston are above the U. S. average (Figure 2). Figure 3 shows that the prices of many food items in Boston are above the U.S. average for major metropolitan areas.

The burden of high food costs is especially acute among the young (under 25), the elderly (over 65); the black and Spanish speaking residents in Massachusetts. (Figure 4)

Transportation, Storage, Processing and Distribution

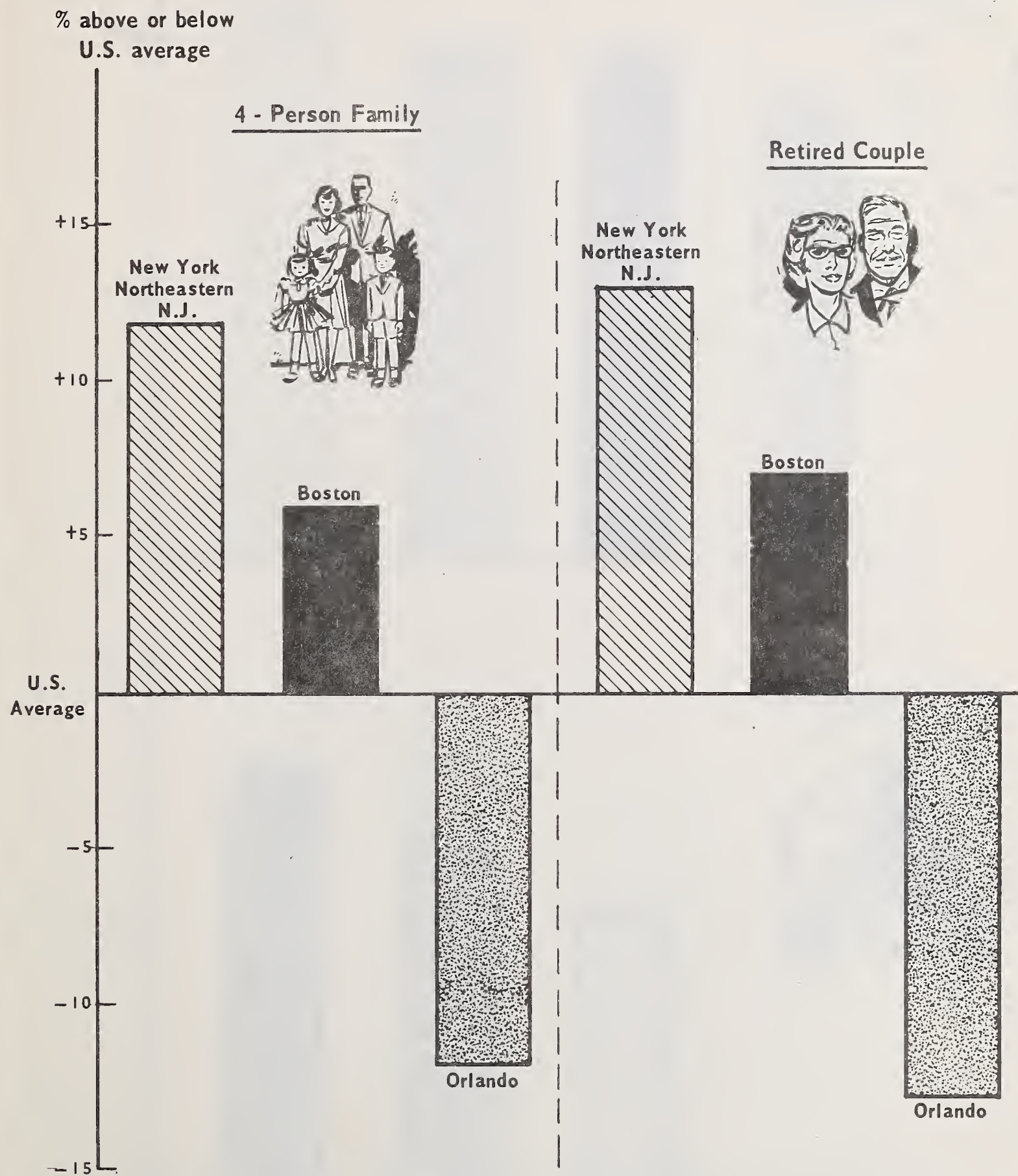
Agricultural exports by the United States reached a record \$13 billion in fiscal 1973 and are expected to reach \$20 billion in 1974 (Figure 5). Reserves of major cereal and feed grains would result in an annual cost of 24 cents a bushel for a 10% reserve and 12 cents a bushel for an 8% reserve. Wheat prices increased by \$3.00 a bushel and corn prices by \$2.00 a bushel in 1973.

The cost of marketing services represents about two-thirds of the consumer's food dollar. Labor, packaging and transportation are the largest marketing cost components (Figure 6).

Most marketing costs do not appear to be higher in Massachusetts than in other states or regions with the exception of transportation costs. Transportation costs are higher in Massachusetts because of our dependency upon distant points for most of our food supply,

Comparisons of a Low-Cost Food Budget for a 4-Person Family and a Retired Couple, Highest and Lowest Metropolitan Areas and Boston

In % above or below the U.S. Average Urban Costs



Source: Bureau of Labor Statistics

Figure 2

Retail Prices of Selected Foods in January, 1974, United States Average, Highest and Lowest Cities and Boston

JAN. 1974 PRICE

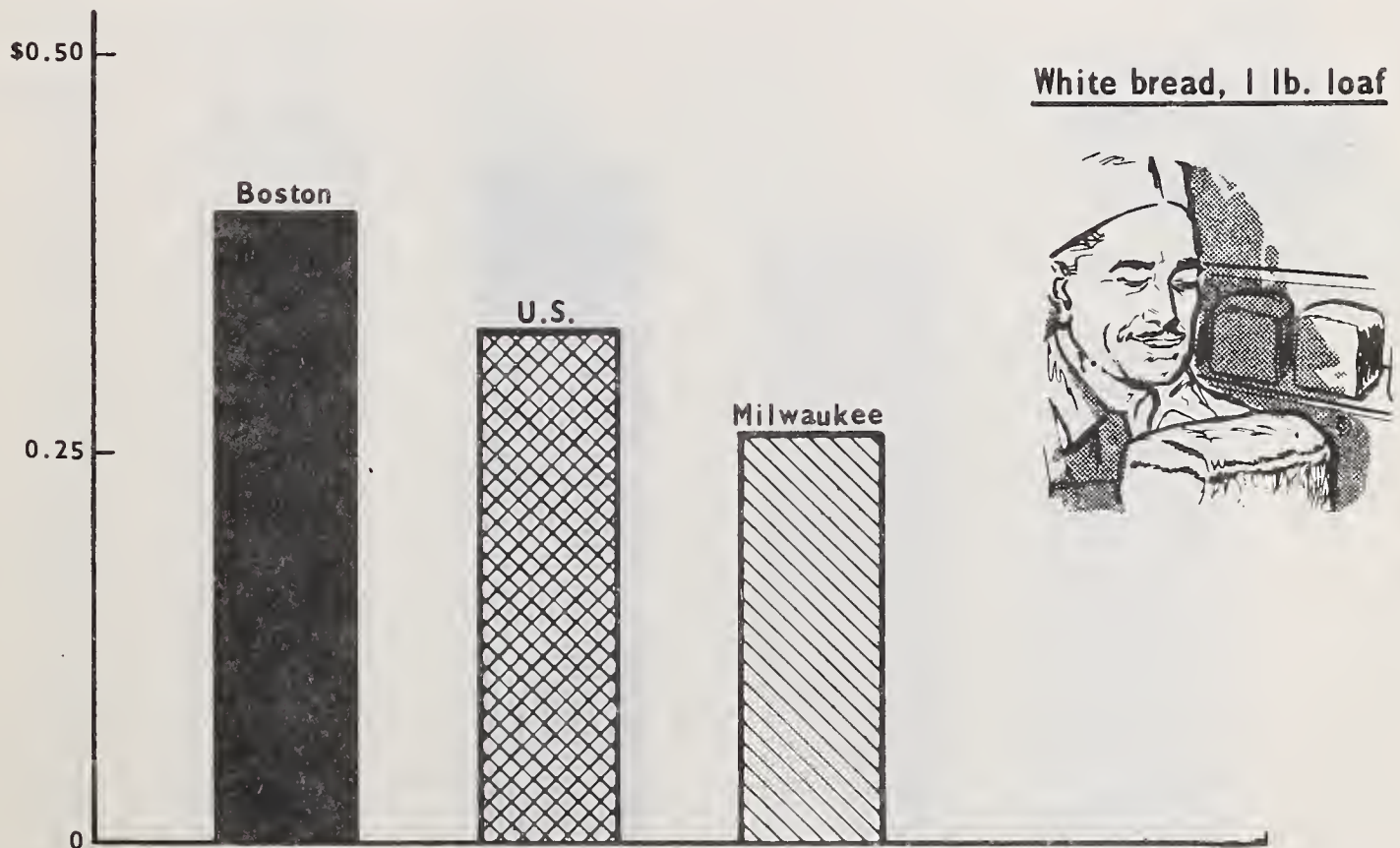
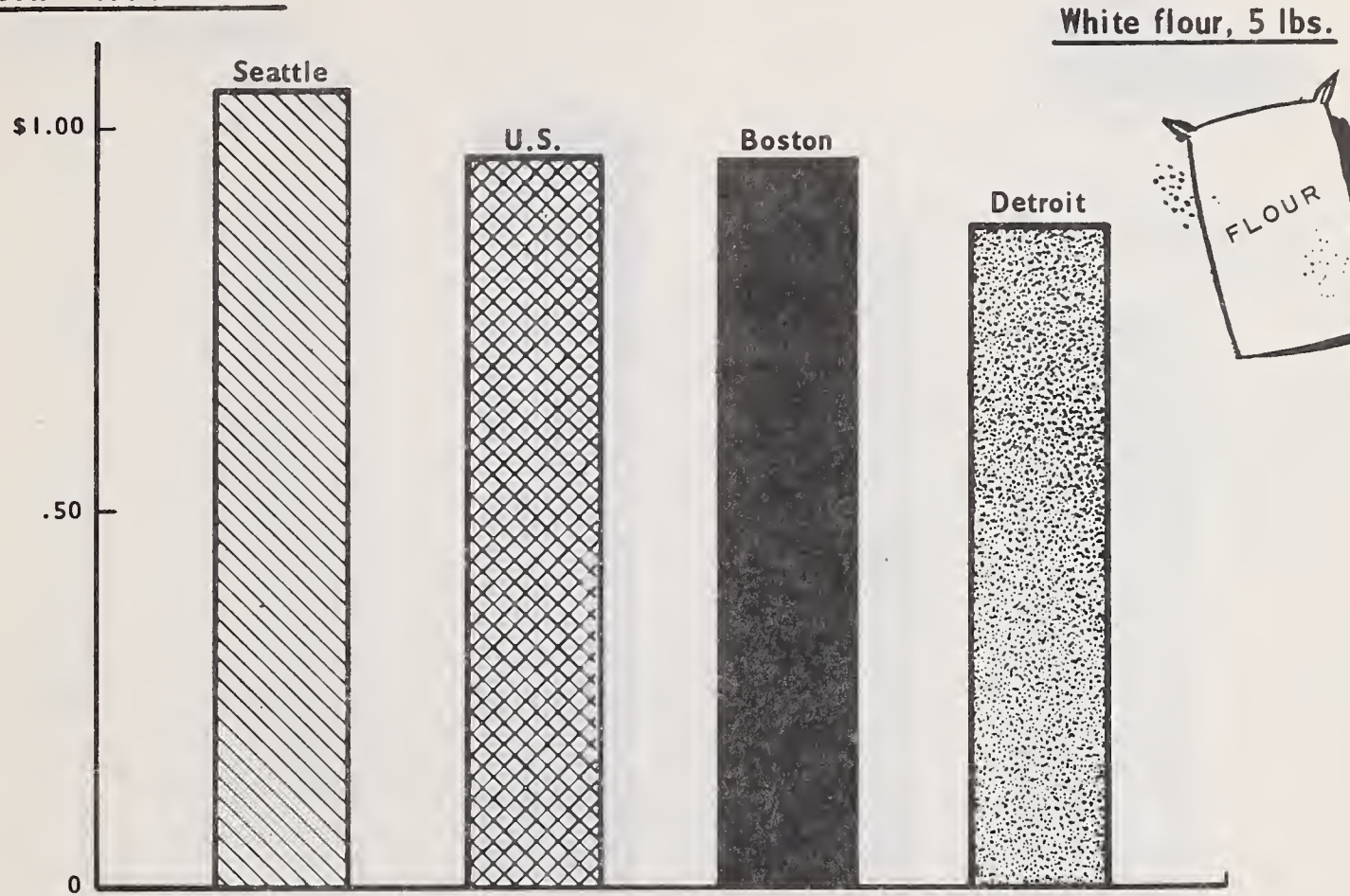


Figure 3a

Retail Prices of Selected Foods (Cont'd.)

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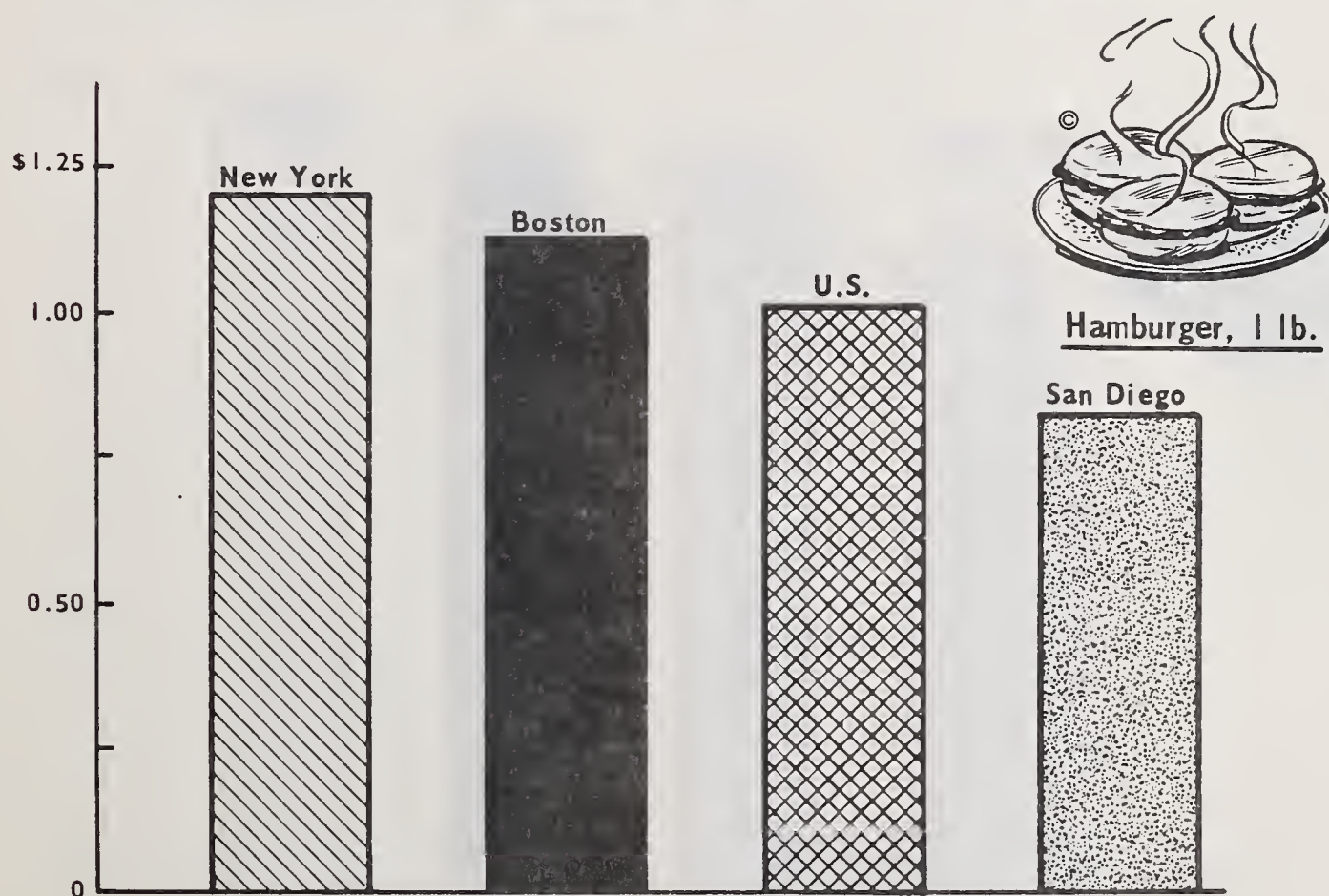
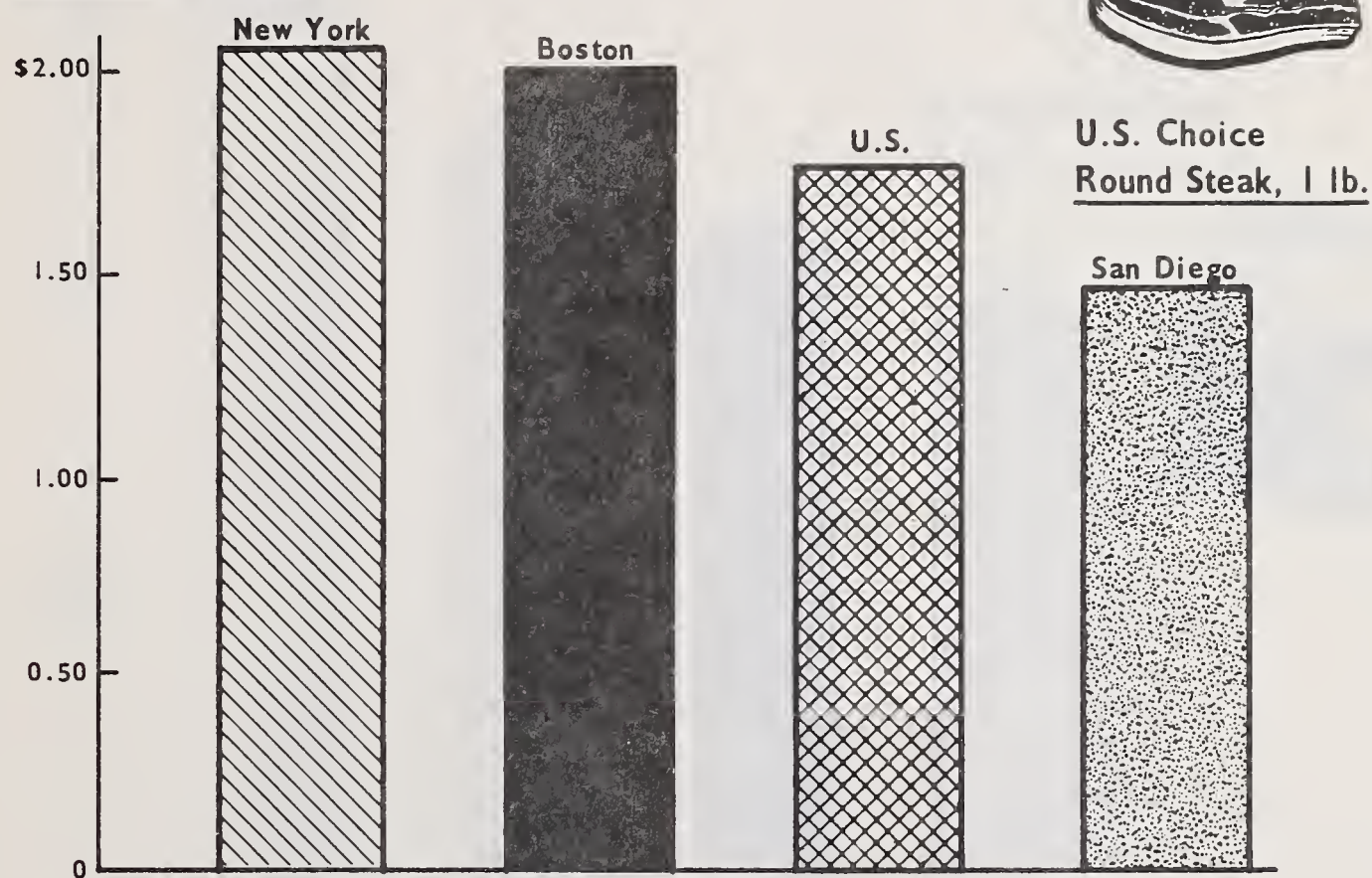


Figure 3b

Retail Prices of Selected Foods (Cont'd.)

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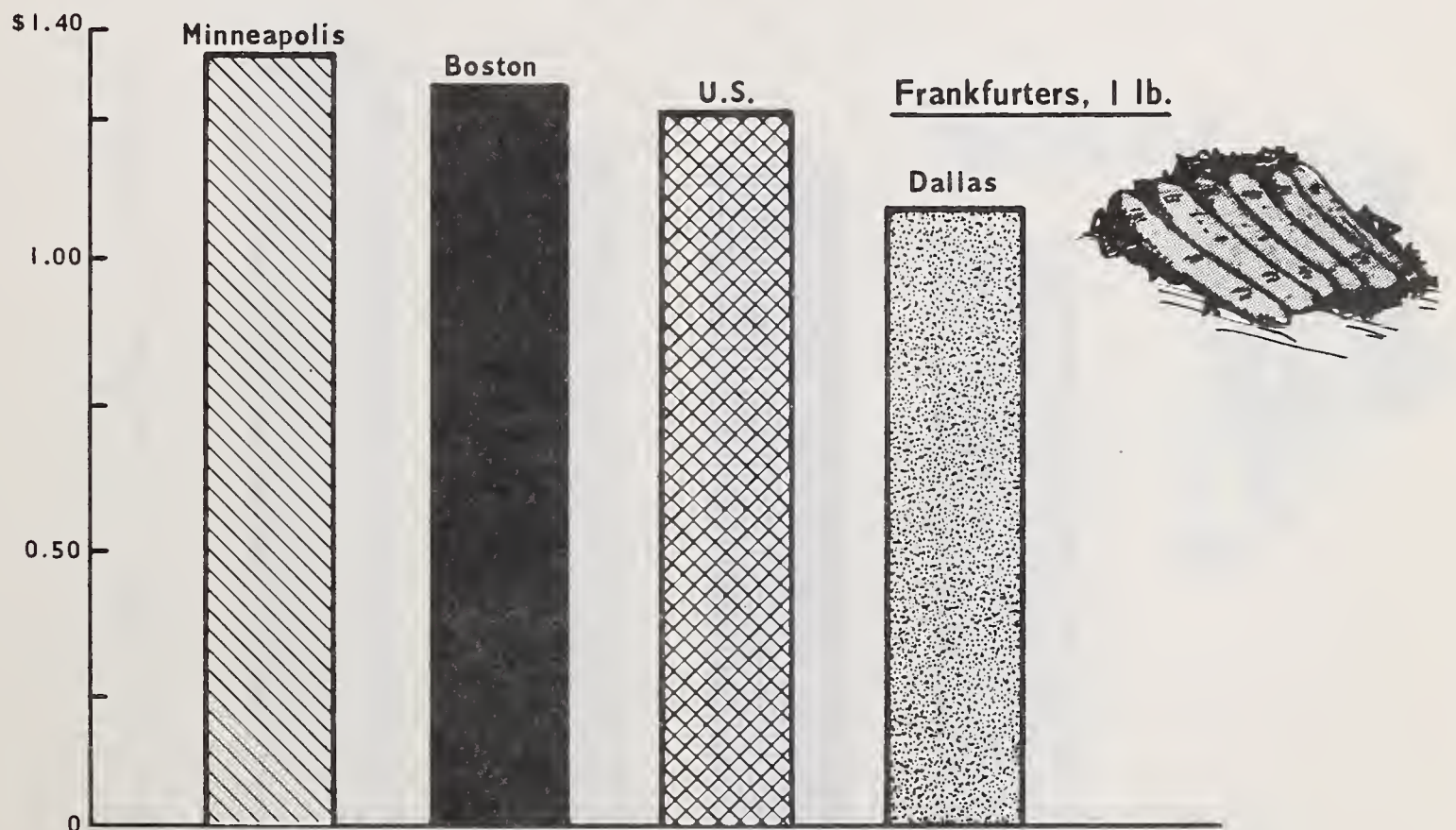
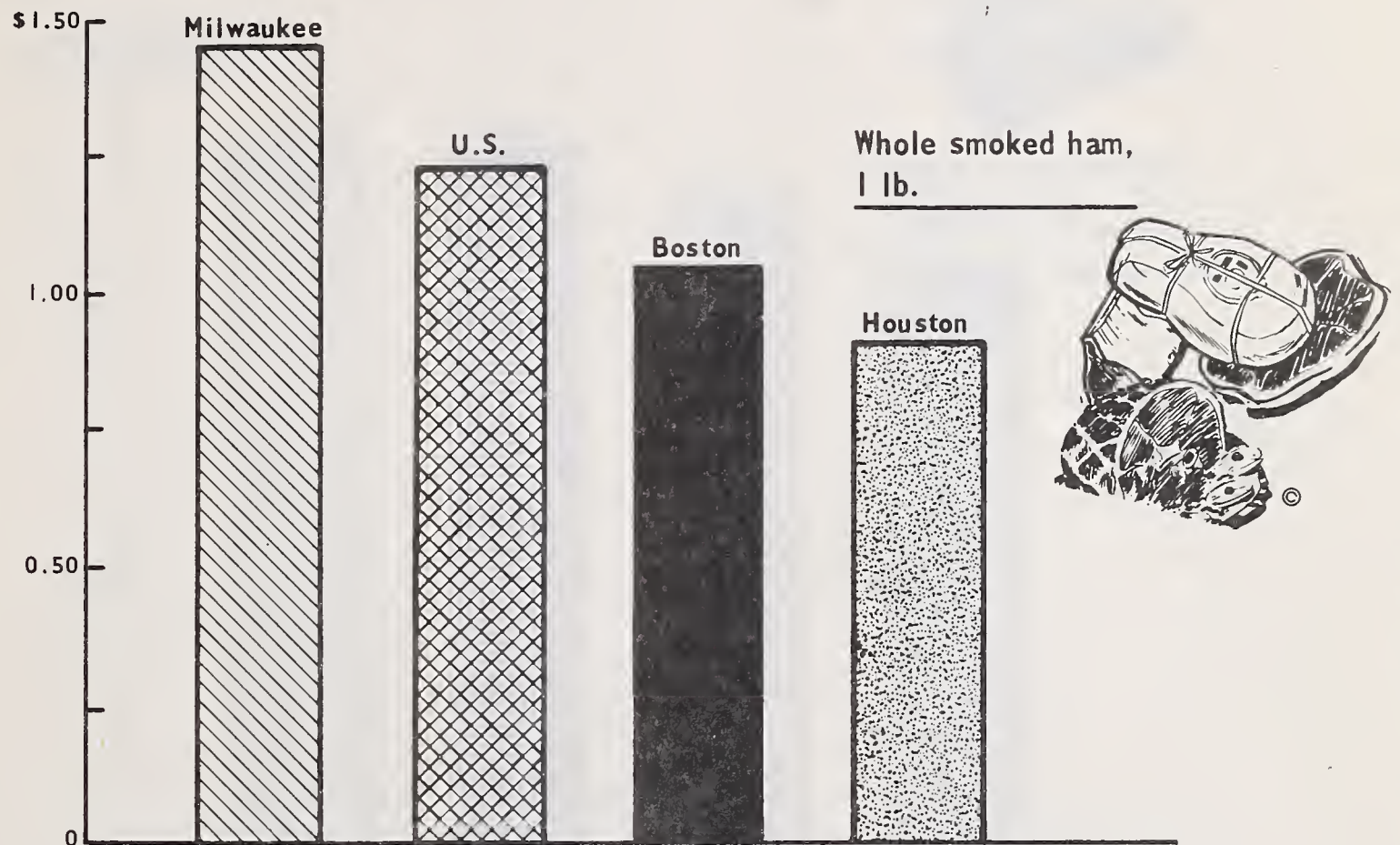


Figure 3c

Retail Prices of Selected Foods (Cont'd.)

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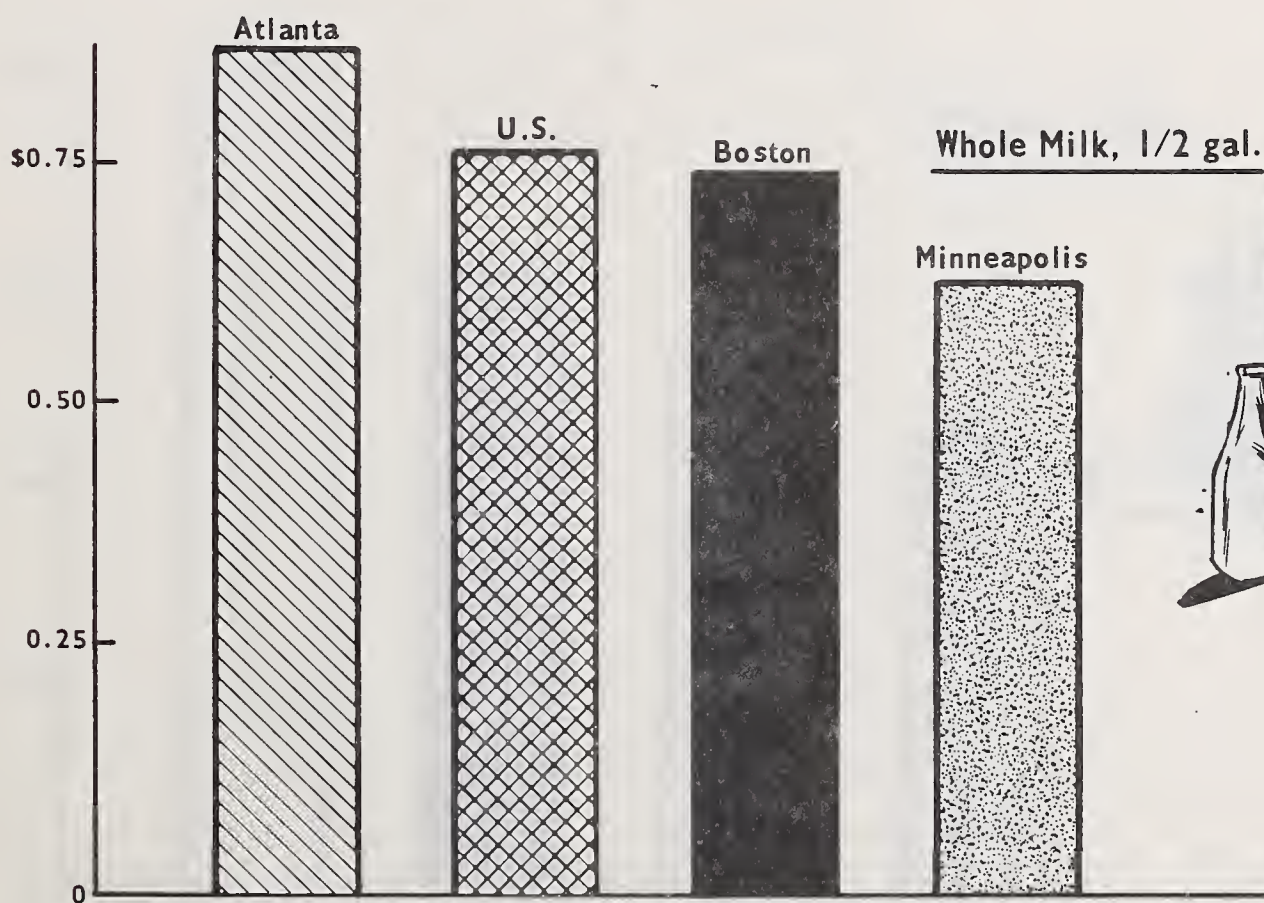
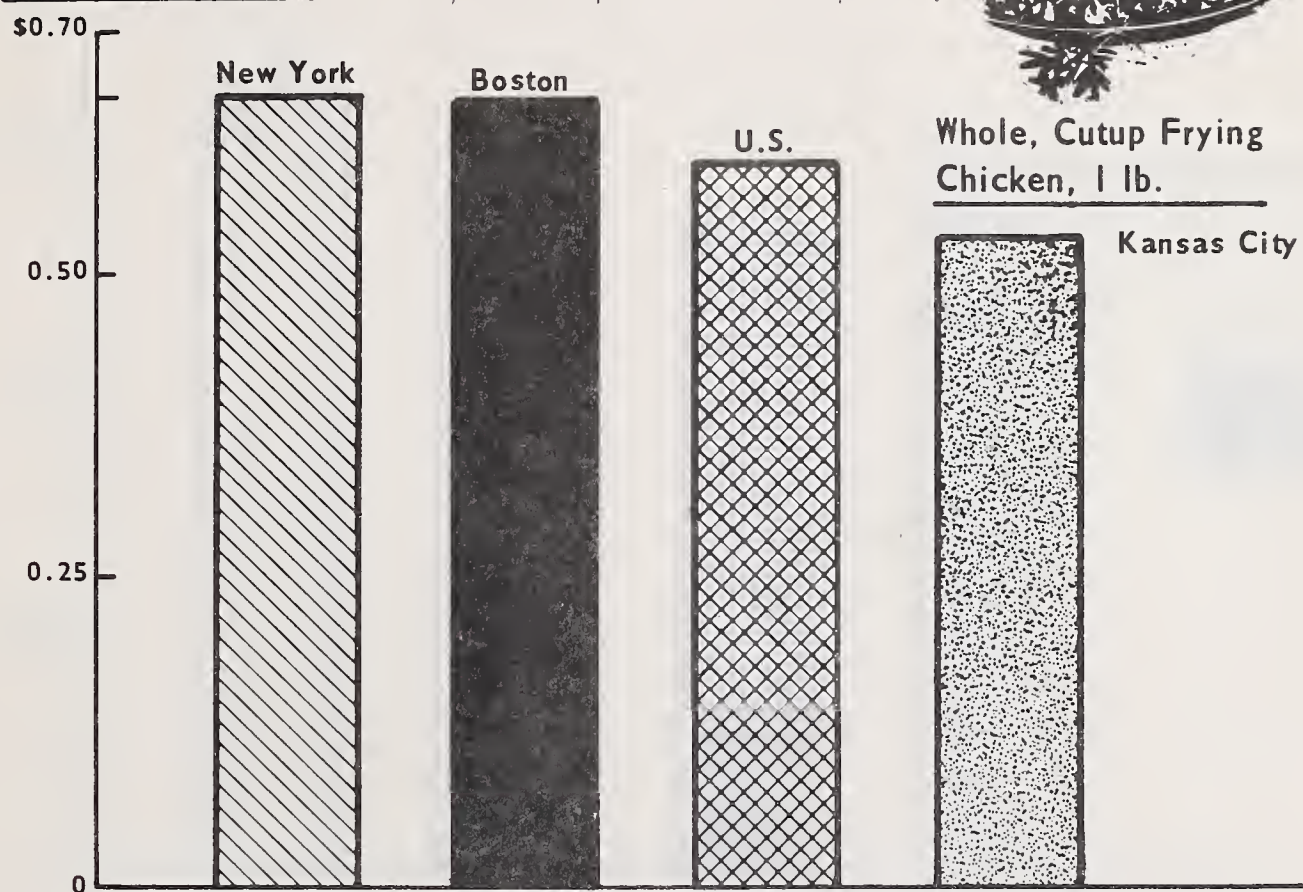


Figure 3d

Retail Prices of Selected Foods (Cont'd.)

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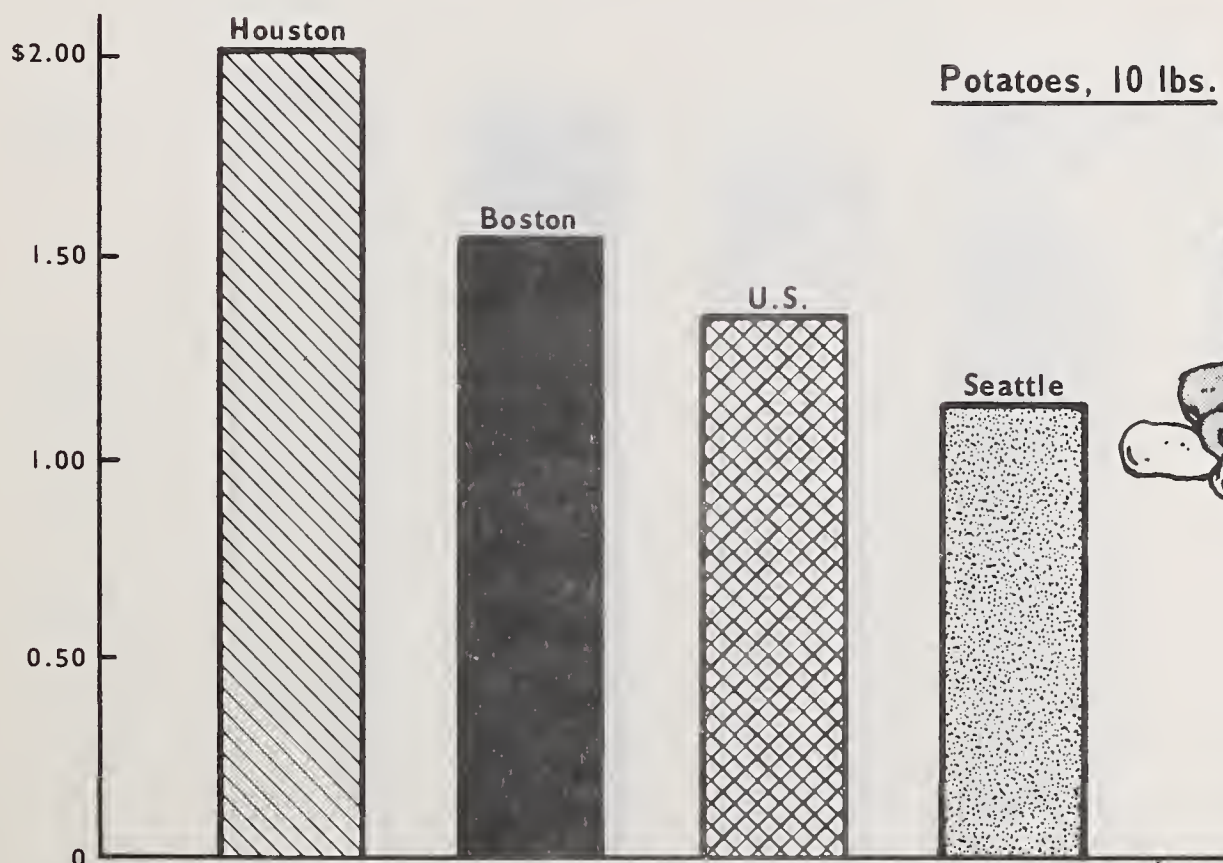
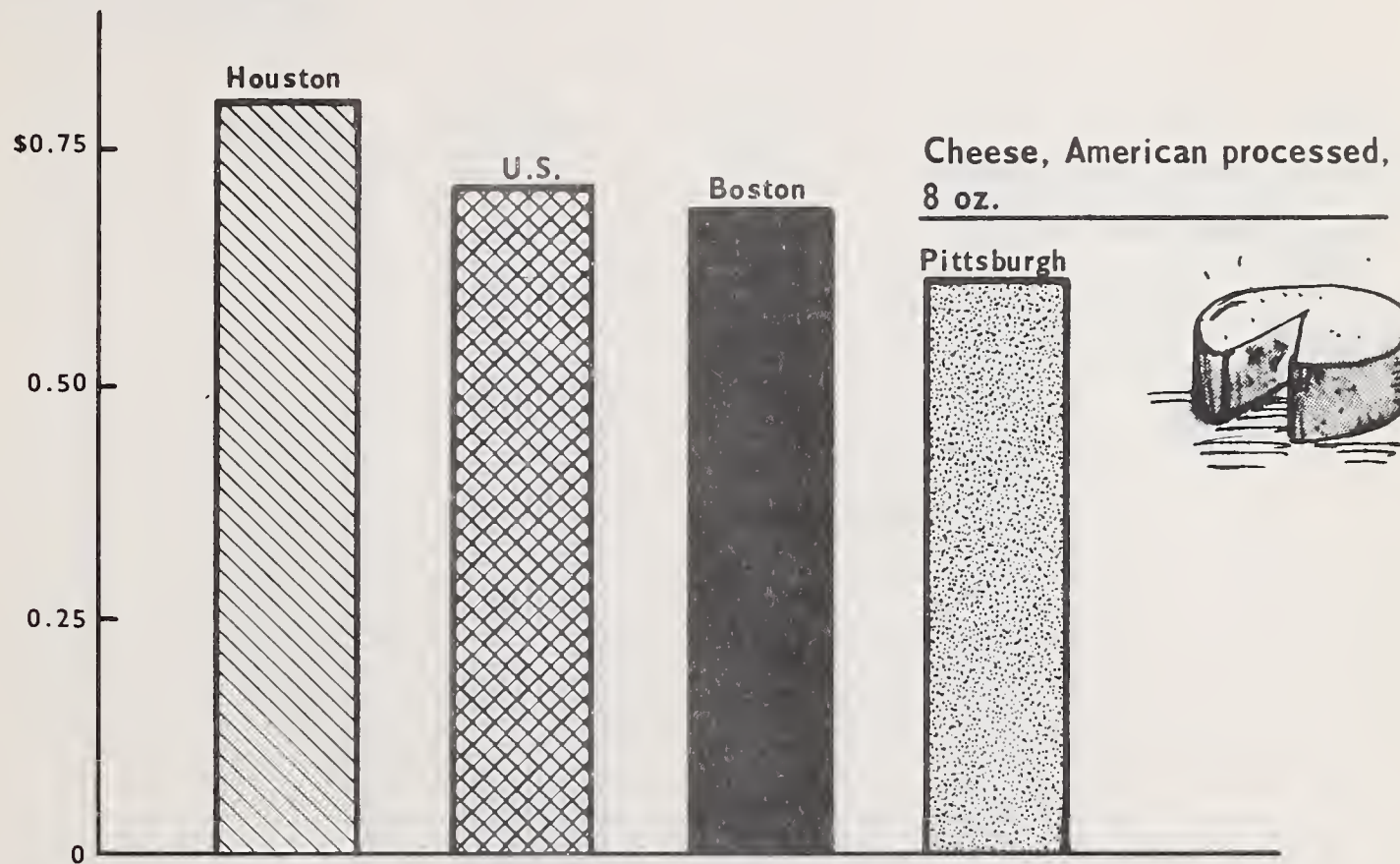


Figure 3e

Retail Prices of Selected Foods (Cont'd.)

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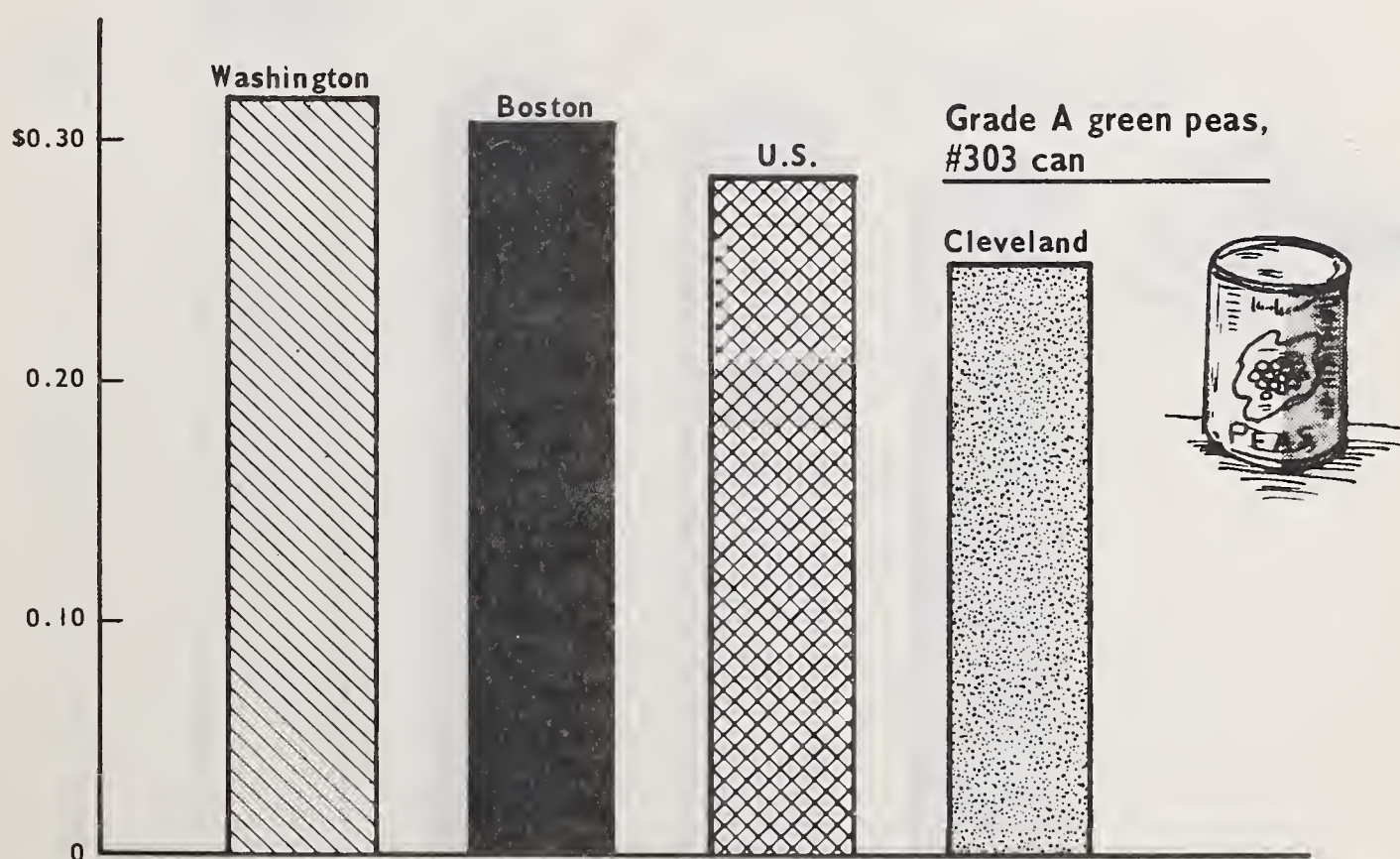
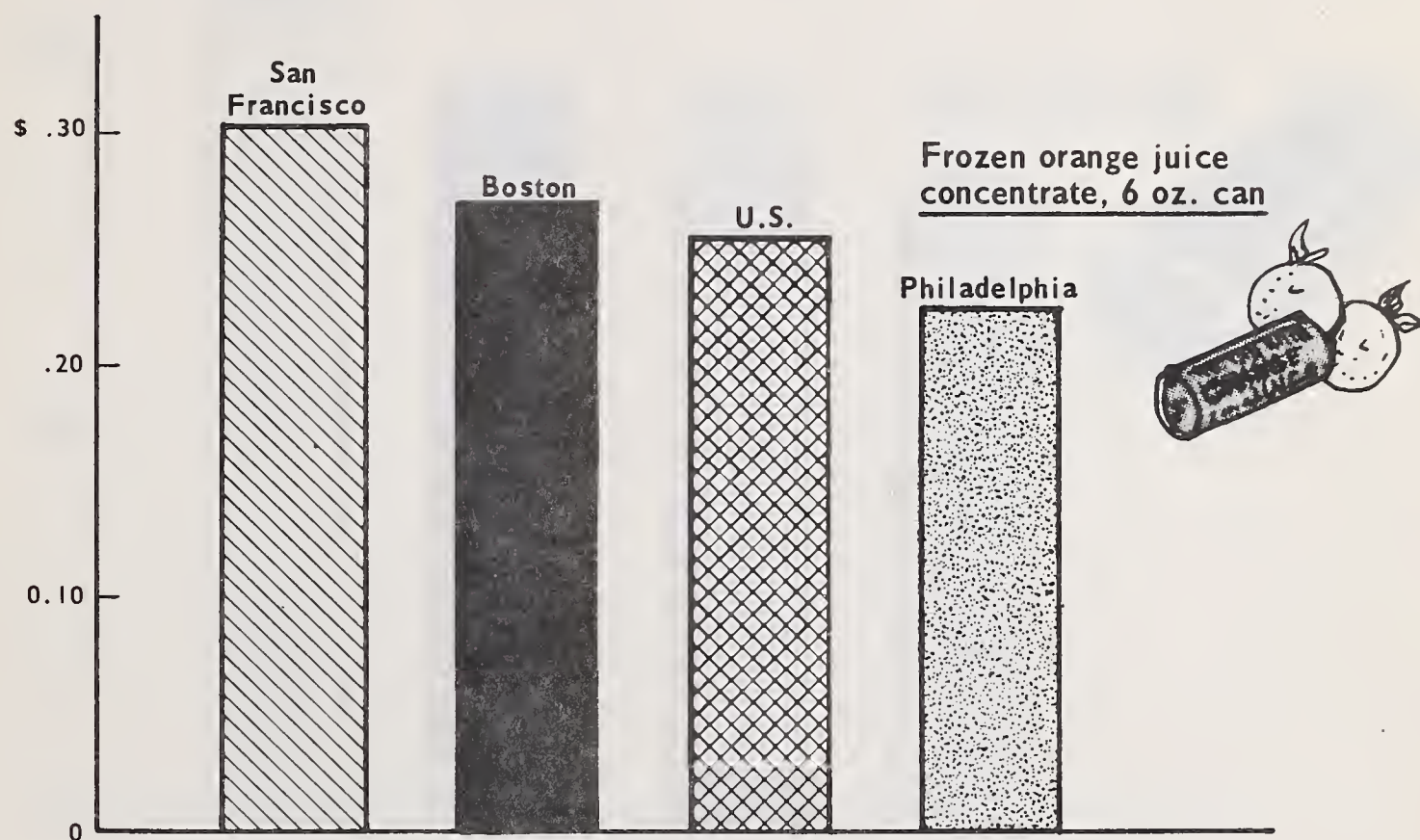


Figure 3f

ORIGINAL ARTICLES

THE EFFECT OF VITAMIN DEFICIENCY ON THE GROWTH OF THE RAT
J. H. HOLLAND, JR., M.D., and J. H. HOLLAND, JR., M.D.
From the Department of Pathology, University of Chicago, Chicago, Ill.

The purpose of this study was to determine the effect of a diet deficient in vitamins upon the growth of the rat. The rats were divided into two groups, one of which was fed a diet deficient in vitamins and the other a diet containing all the necessary vitamins. The results showed that the rats fed the deficient diet grew much smaller than those fed the complete diet.

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Retail Prices of Selected Foods (Cont'd.)

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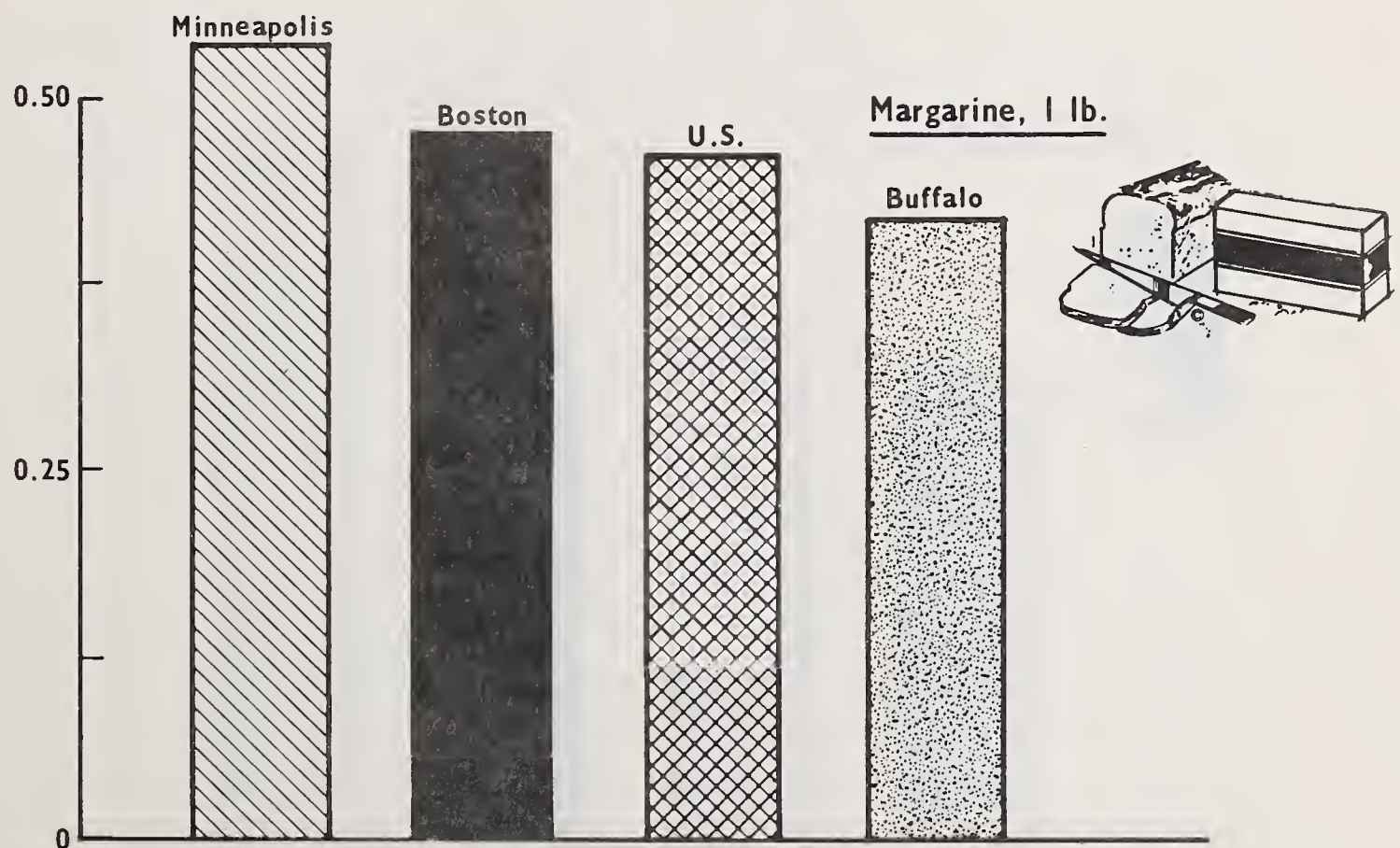
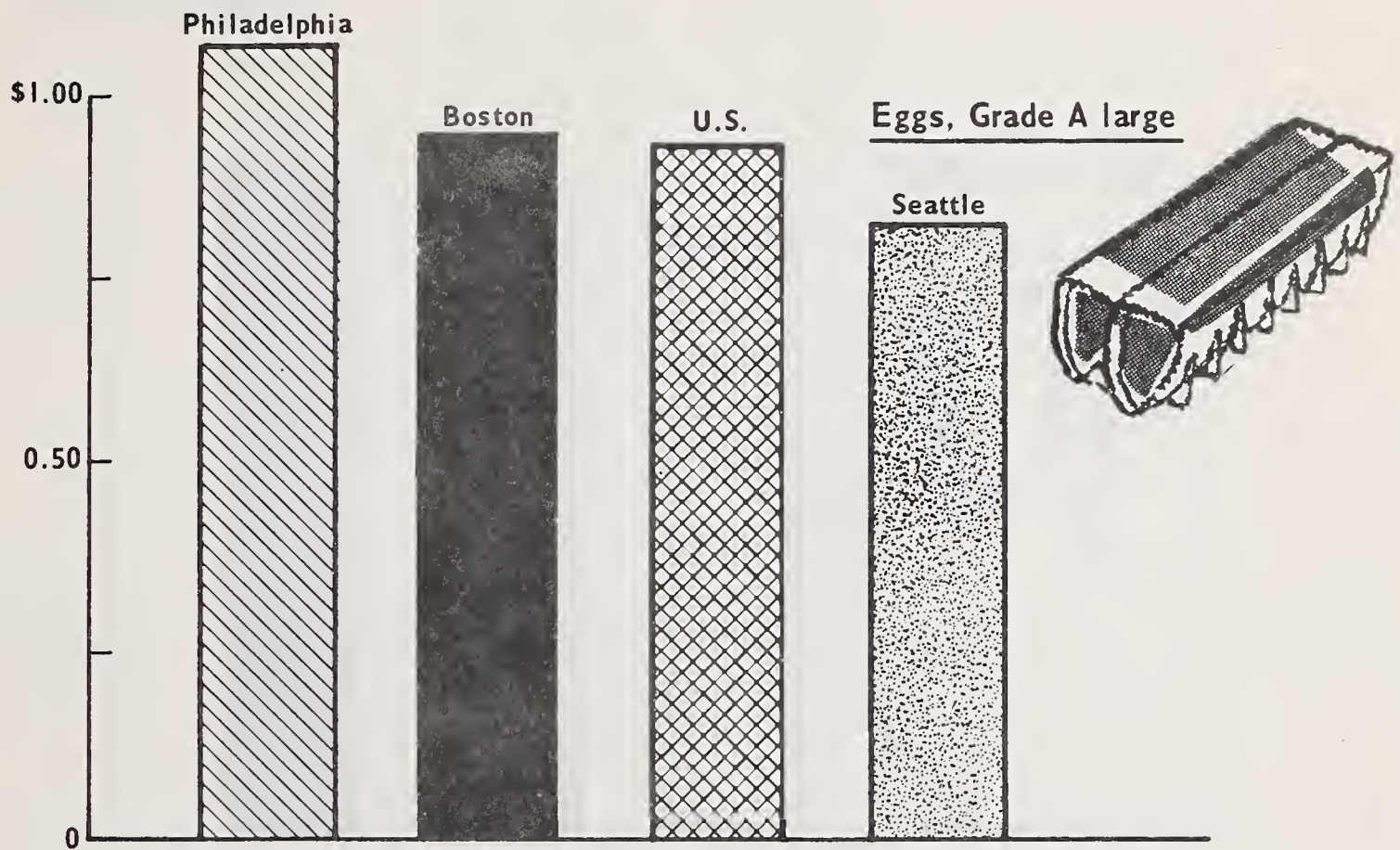
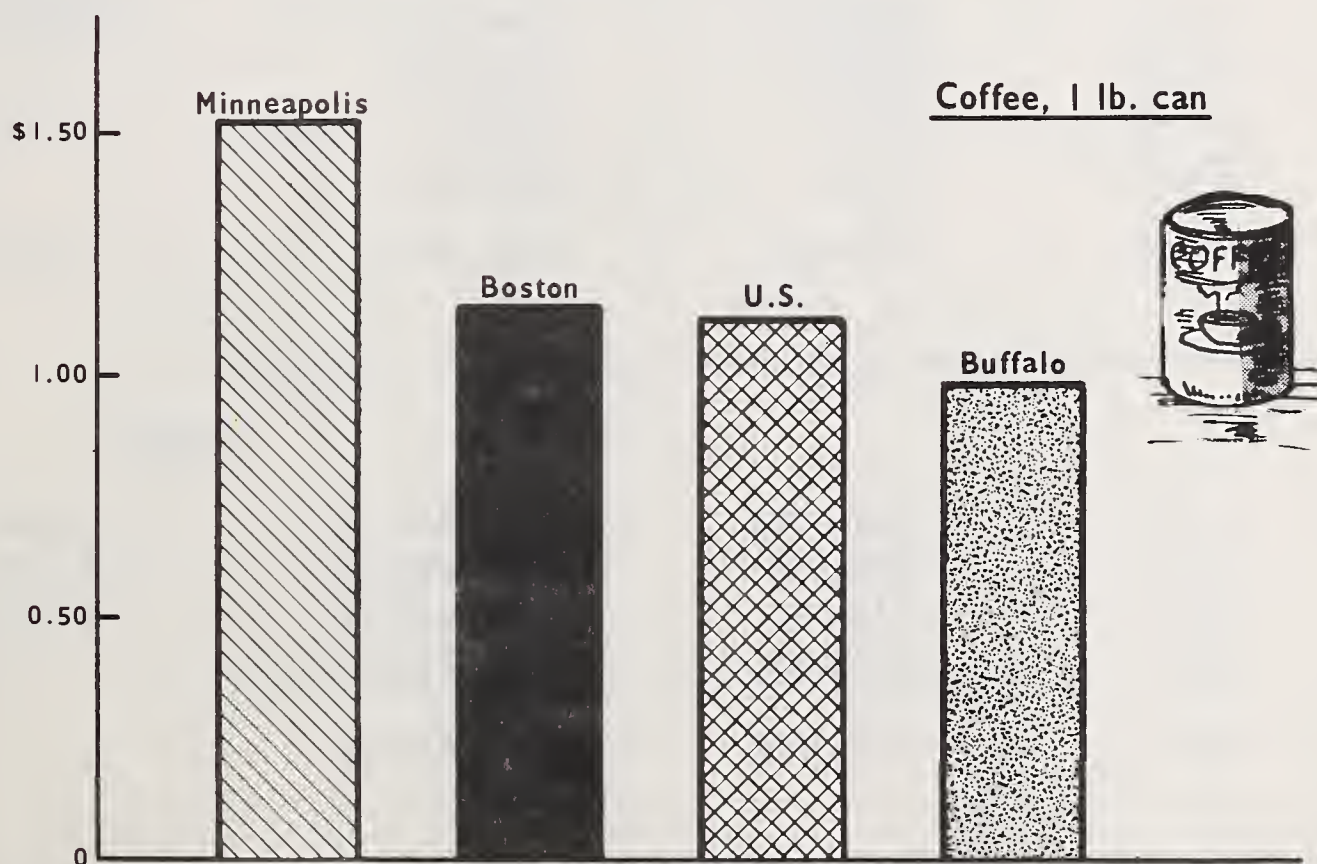
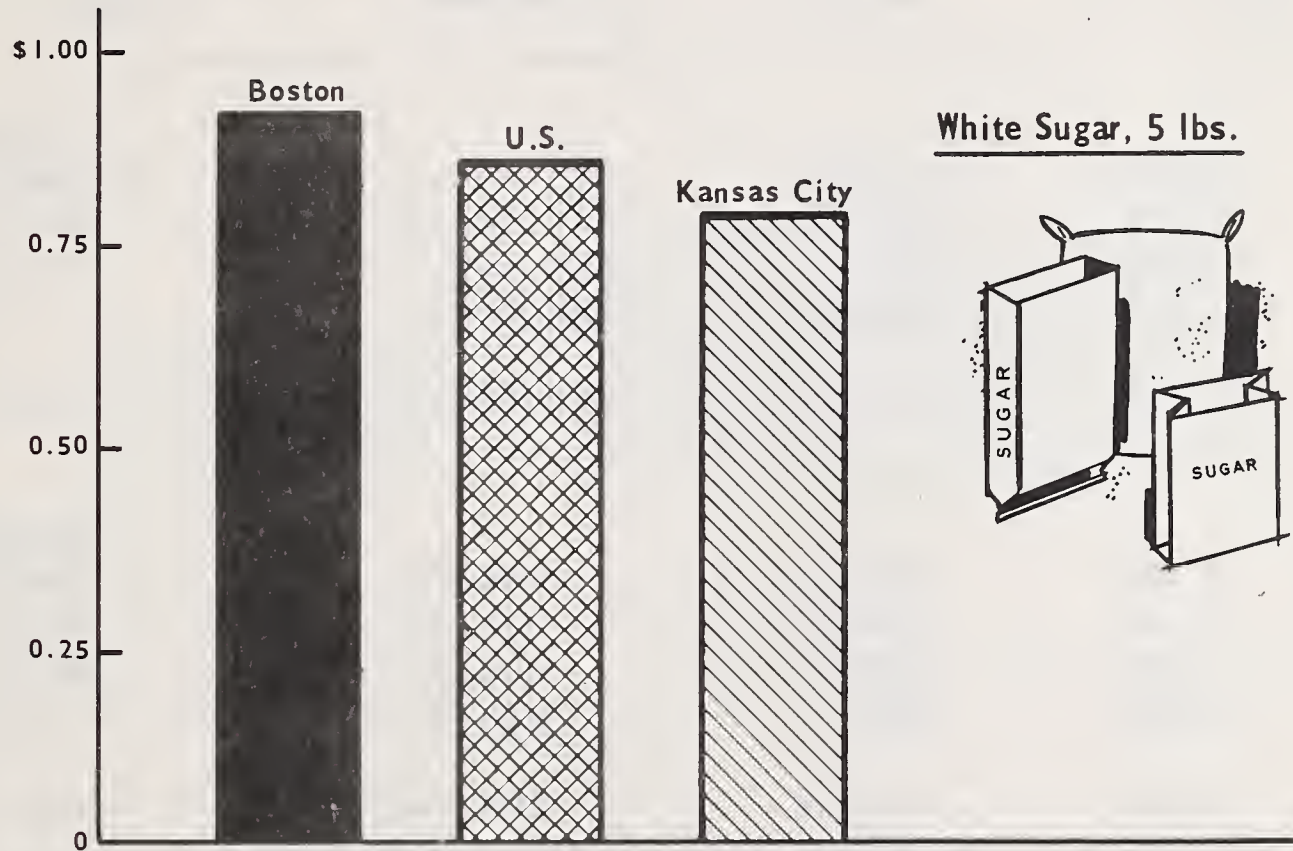


Figure 3g

Retail Prices of Selected Foods (Cont'd.)

JAN. 1974 PRICE



Source: Bureau of Labor Statistics

Figure 3h

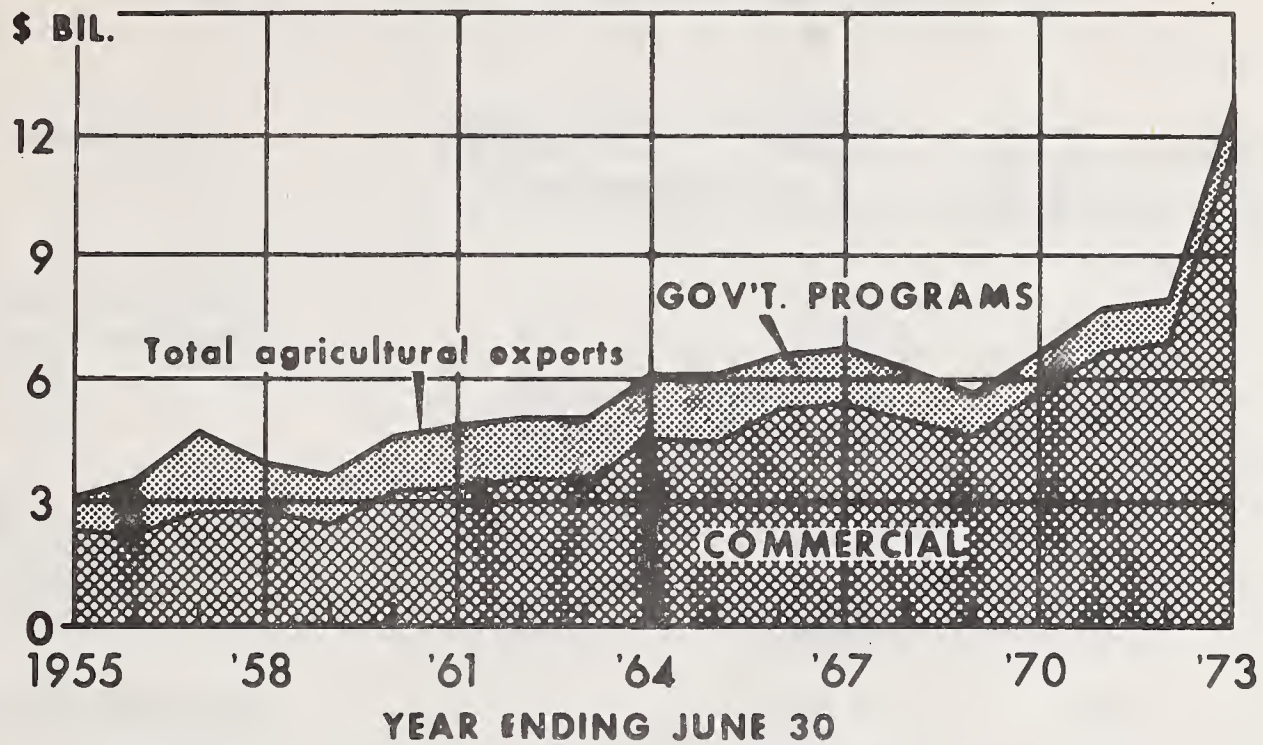
Number and Percent of Massachusetts Residents
Below Poverty Level of Income, By Race and Age, 1969

Race and Age Group	Total Population	Number	% of Total
<u>White</u>			
Under 25	2,264,696	160,739	7.1
25-44	1,148,528	52,217	4.5
45-64	1,038,954	29,393	2.8
65+	<u>405,497</u>	<u>35,928</u>	<u>8.9</u>
Total	4,857,675	278,277	5.7
<u>Negro</u>			
Under 25	87,965	26,856	30.5
25-44	36,510	6,694	18.3
45-64	18,200	1,814	10.0
65+	<u>5,218</u>	<u>685</u>	<u>13.1</u>
Total	147,893	36,049	24.4
<u>Spanish</u>			
Under 25	35,994	9,893	27.5
25-44	15,920	2,429	15.3
45-64	5,548	706	12.7
65+	<u>1,743</u>	<u>223</u>	<u>12.8</u>
Total	59,205	13,251	22.4
<u>TOTAL</u>			
Under 25	2,388,655	197,488	8.3
25-44	1,200,958	61,340	5.1
45-64	1,062,702	31,913	3.0
65+	<u>412,458</u>	<u>36,836</u>	<u>8.9</u>
	5,064,773	327,577	6.5

Source: Table #207 - U. S. Census of Population, 1970

Figure 4

U.S. AGRICULTURAL EXPORTS: COMMERCIAL AND UNDER GOVERNMENT PROGRAMS

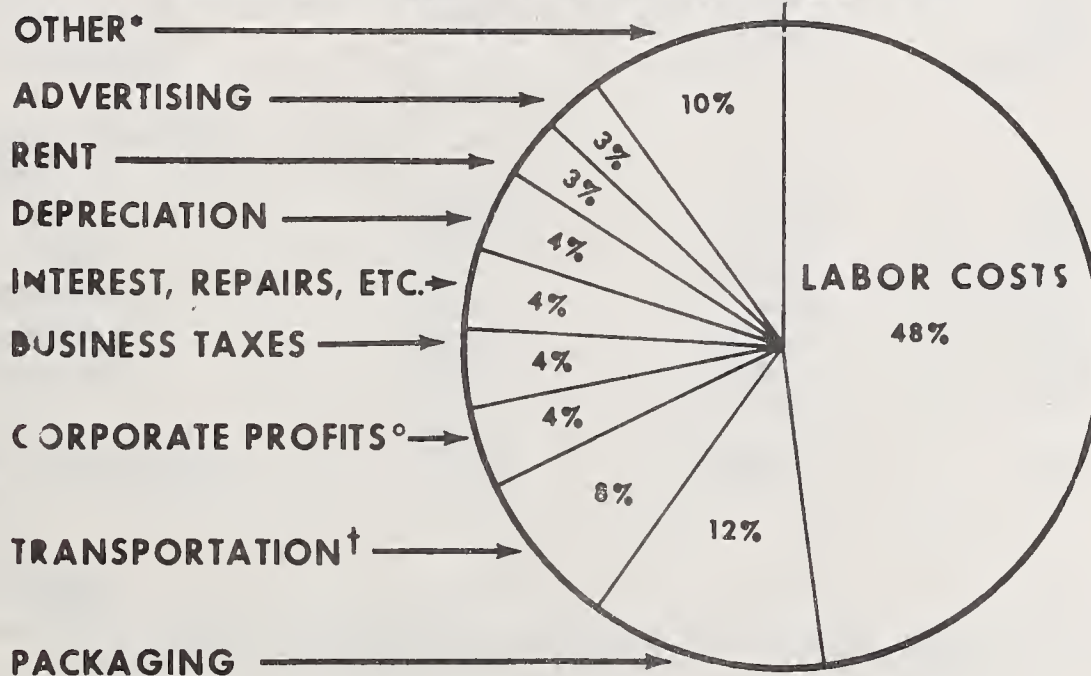


U.S. DEPARTMENT OF AGRICULTURE

NEG. ERS 5388 - 73 (8) ECONOMIC RESEARCH SERVICE

Figure 5

COMPONENTS OF BILL FOR MARKETING FARM FOODS, 1972



*RESIDUAL INCLUDES SUCH COSTS AS UTILITIES, FUEL, PROMOTION, LOCAL FOR-HIRE TRANSPORTATION INSURANCE.
 °BEFORE TAXES. †INTERCITY RAIL AND TRUCK. PRELIMINARY DATA.

U.S. DEPARTMENT OF AGRICULTURE

NEG. ERS 8452 - 73 (8) ECONOMIC RESEARCH SERVICE

Figure 6

Production as a Percentage of Consumption
of Major Food Commodities in New England, 1972

Food Commodity	State		
	Connecticut	Maine	Massachusetts
	(Production as a % of Consumption)		
<u>Meat</u>			
Beef and Veal	4.1	13.7	2.2
Lamb and Mutton	1.3	12.2	0.9
Pork	0.9	2.4	3.6
Total	2.9	9.7	2.7
<u>Poultry</u>			
Chicken	8.9	41.3	2.9
Turkey	3.9	11.0	5.1
Total	8.1	34.3	3.3
<u>Fish and Shellfish</u>	3.3	298.5	88.1
<u>Eggs</u>	97.8	444.2	30.1
<u>Dairy Products</u>			
Fluid Milk Equivalent	35.8	106.8	19.4
<u>Fruit (fresh)</u>			
Apples	41.3	226.7	92.8
Peaches	12.6	1.5	8.1
Pears	23.2	NA	10.3
Strawberries	NA	NA	96.0
Cranberries	-	-	1288.2
<u>Vegetables (fresh)</u>			
Tomatoes	5.1	1.3	20.3
Lettuce	4.7	0.5	4.1
Sweet Corn	81.1	35.0	127.9
Asparagus		4.9	41.5
Snap Beans	42.1	354.2	25.4
Cabbage	11.0	153.3	32.9
<u>Potatoes (fresh and processed)</u>	21.6	2332.2	8.6
<u>Cereal Grains</u>	*	*	*

* Less than 0.1%

Figure 7a

Production as a Percentage of Consumption
of Major Food Commodities (continued)

Food Commodity	State			New England
	New Hampshire	Rhode Island	Vermont	
(Production as a % of Consumption)				
<u>Meat</u>				
Beef and Veal	7.7	0.7	72.0	6.6
Lamb and Mutton	0.6	1.2	10.6	1.7
Pork	4.8	3.0	3.8	2.9
Total	5.9	1.5	46.6	5.2
<u>Poultry</u>				
Chicken	13.1	3.0	7.2	8.1
Turkey	51.5	1.7	5.0	6.7
Total	19.8	2.8	6.8	7.9
<u>Fish and Shellfish</u>	3.8	182.5	-	83.1
<u>Eggs</u>	128.9	19.1	80.0	89.9
<u>Dairy Products</u>				
Fluid milk equivalent	76.4	11.8	756.2	64.5
<u>Fruit (fresh)</u>				
Apples	235.7	17.4	255.7	79.7
Peaches	7.8	1.8	NA	NA
Pears	NA	NA	NA	NA
Strawberries	NA	NA	NA	NA
Cranberries	-	-	-	615.1
<u>Vegetables (fresh)</u>				
Tomatoes	6.1	NA	NA	NA
Lettuce	8.9	NA	NA	NA
Sweet Corn	103.0	NA	NA	NA
Asparagus	5.0	NA	20.7	NA
Snap Beans	26.0	NA	NA	NA
Cabbage	137.4	NA	NA	NA
<u>Potatoes (fresh and processed)</u>	13.9	-	26.9	209.4
<u>Cereal Grains</u>	*	*	*	*

* Less than 0.1%

Figure 7b

discriminatory rail rates for feed grains, increasing dependence upon truck transportation for line hauls, volume rail rate requirements and insufficient use of special volume rail rates now available to receivers.

Figure 7 indicates the extent of dependency of the New England states for major food commodities. An overall estimate of the value of food consumed compared with the value of food produced is shown for each New England state and the region in Figure 8.

The major sources of fresh fruits and vegetables in Massachusetts and the relative importance of truck and rail transportation are shown in Figure 9.

The Retail Value of Food Produced as a % of the Retail
Value of Food Consumed in New England
(includes seafood)

<u>STATE</u>	<u>Value of Production as a % of Value of Consumption</u>
Connecticut	14.2
Maine	108.3
Massachusetts	16.1
New Hampshire	27.5
Rhode Island	13.5
Vermont	<u>124.0</u>
Total	27.9

Source: Census of Agriculture, National Marine Fisheries Service, Bureau of the Census, Economic Research Service, USDA

Figure 8

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
1155 EAST 58TH STREET
CHICAGO, ILLINOIS 60637

TO: THE DIRECTOR, NATIONAL BUREAU OF STANDARDS
433 L'ENFANT PLEIN
WASHINGTON, D.C. 20535

FROM: DR. J. H. GOLDSTEIN
DEPARTMENT OF CHEMISTRY
UNIVERSITY OF CHICAGO

SUBJECT: 1,2-DICHLOROETHANE
CAS NO. 107-06-2
MW 98.96

REFERENCE: J. H. Goldstein, J. Chem. Phys., 41, 1011 (1964)

Wavenumber (cm ⁻¹)	Intensity
1000	Very weak
1200	Weak
1400	Medium
1500	Strong
1600	Very strong
1700	Medium
1800	Weak
1900	Very weak
2000	Medium
2100	Weak
2200	Very weak
2300	Medium
2400	Weak
2500	Very weak
2600	Medium
2700	Weak
2800	Very weak
2900	Medium
3000	Weak
3100	Very weak
3200	Medium
3300	Weak
3400	Very weak
3500	Medium
3600	Weak
3700	Very weak
3800	Medium
3900	Weak
4000	Very weak

ANALYSES: C, 24.2%; H, 4.0%; Cl, 71.8%
CALCULATED: C, 24.2%; H, 4.0%; Cl, 71.8%

Origins of Major Fruit and Vegetable Commodities
Received in Boston, 1972
(Percent of Total)

Origin	% of Fresh Fruit and Vegetable Unloads in Boston
Arizona	3.3
California	28.2
Florida	17.1
Idaho	1.7
Maine	10.2
Massachusetts	5.2
New Hampshire	1.2
New Jersey	4.0
New York	6.0
North Carolina	1.6
Oregon	1.2
South Carolina	2.0
Texas	3.1
Virginia	1.1
Washington	1.9
Other States and Territories	7.5
Foreign Nations	<u>4.7</u>
Total	100.0
<hr/>	
% Received by Truck	57.2
% Received by Rail	42.8

Source U.S.D.A., Market News Service

Figure 9

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300

301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400

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The effect of utilizing trucks for line haul transportation upon consumer food prices in Massachusetts is illustrated in the examples shown in Figure 10.

Higher transportation costs are reflected in food production costs as well as the costs of finished food products. The differential in the transportation rate for midwestern corn used for poultry feed amounts to a disadvantage to New England producers of one-half cent per pound on broilers and three-fourths of a cent per dozen of eggs compared with southern producers.

The high degree of dependency of Massachusetts and New England upon outside sources for our food supply makes us highly vulnerable to sudden changes in the supply-side or the demand-side of the national and international food economy. In addition, our lack of feed and food inventories in New England can result in food emergencies whenever the usual pattern of distribution is disrupted.

Food Production

Massachusetts agriculture is characterized by trends towards fewer but larger farms, less land in farms and less harvested cropland.

Figure 11 shows the uses of the 5 million acres of land in Massachusetts. The decline in number of farms and acreage in farms in Massachusetts is shown in Figure 12.

Cash receipts from farm marketings in Massachusetts were nearly \$154 million in 1972, and more than \$142 million of the total was from the sale of food commodities. Milk, eggs and vegetables represented the most important sources of income for Massachusetts farmers. (Figure 13)

The number of acres of cropland per person in Massachusetts and New England is far less than for the U. S. average as shown in Figure 14.

Agriculture may continue to decline in Massachusetts as indicated by projections of the U. S. Department of Agriculture for the production of major agricultural commodities in the state through 1985. (Figure 14a)

Line-Haul Transportation Cost as a % of Retail Price, Truck and Rail, California Tomatoes, Lettuce and Potatoes

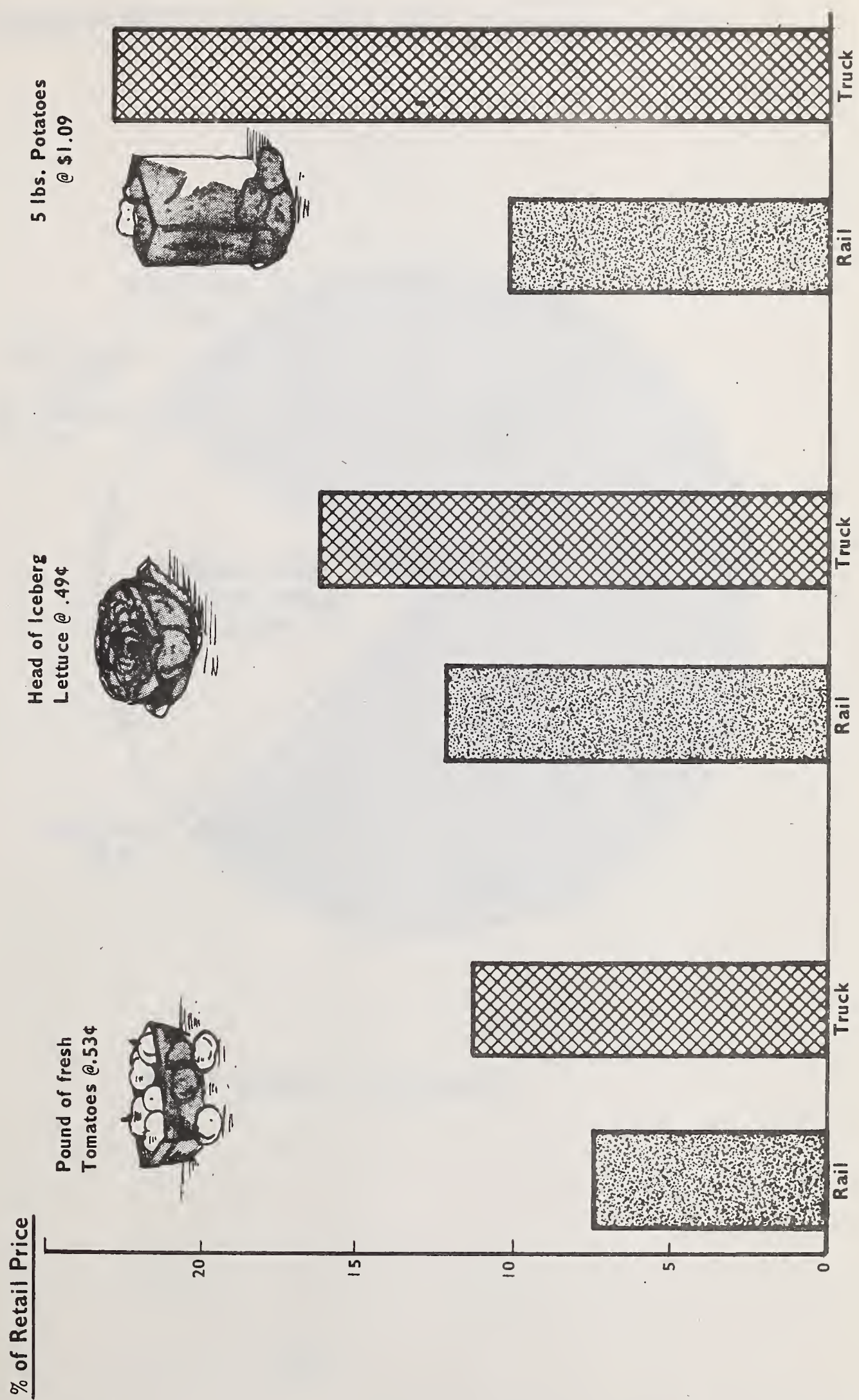
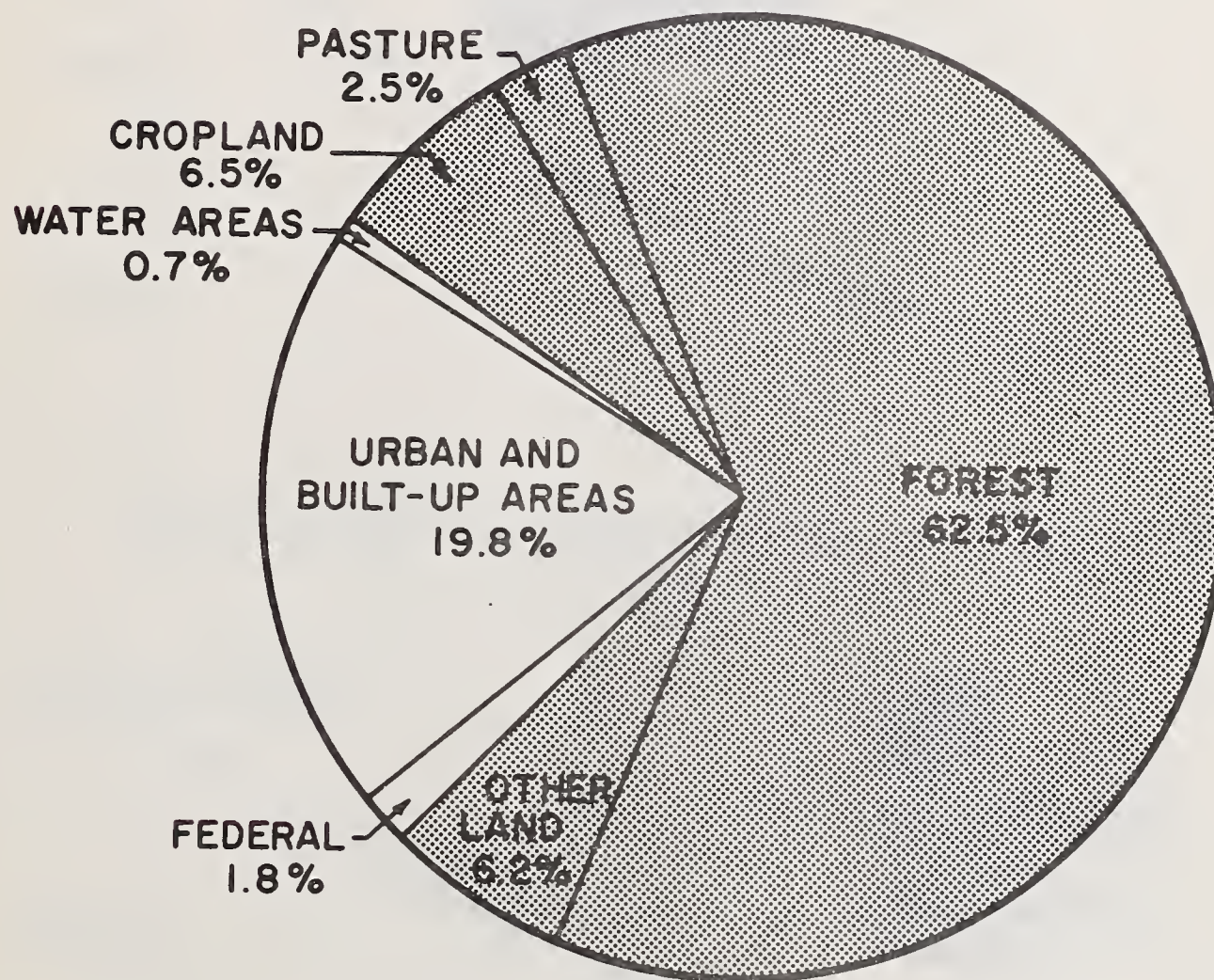


Figure 10

MASSACHUSETTS LAND AREA AND ITS USES IN 1967

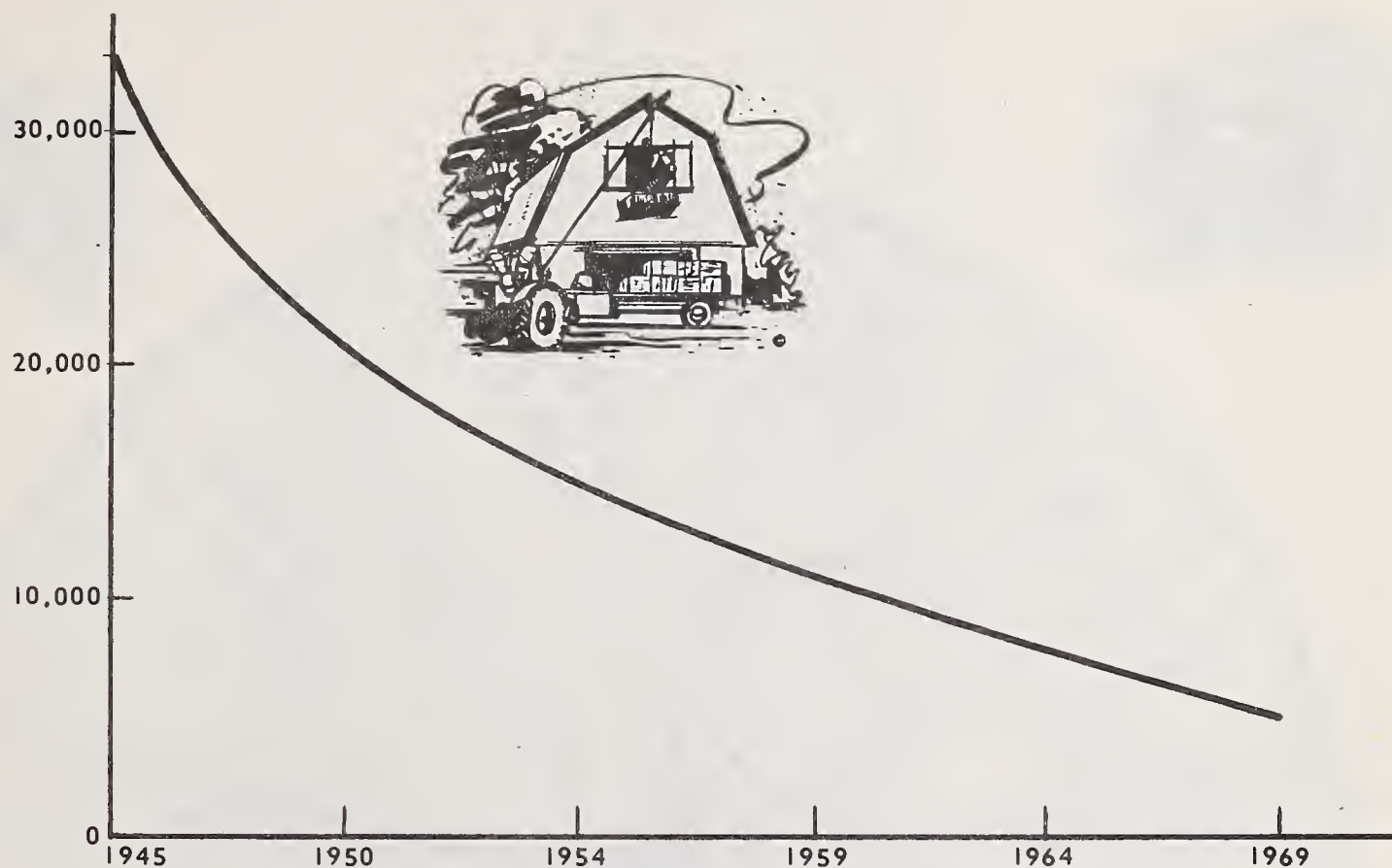


Total Acres = 5,033,000

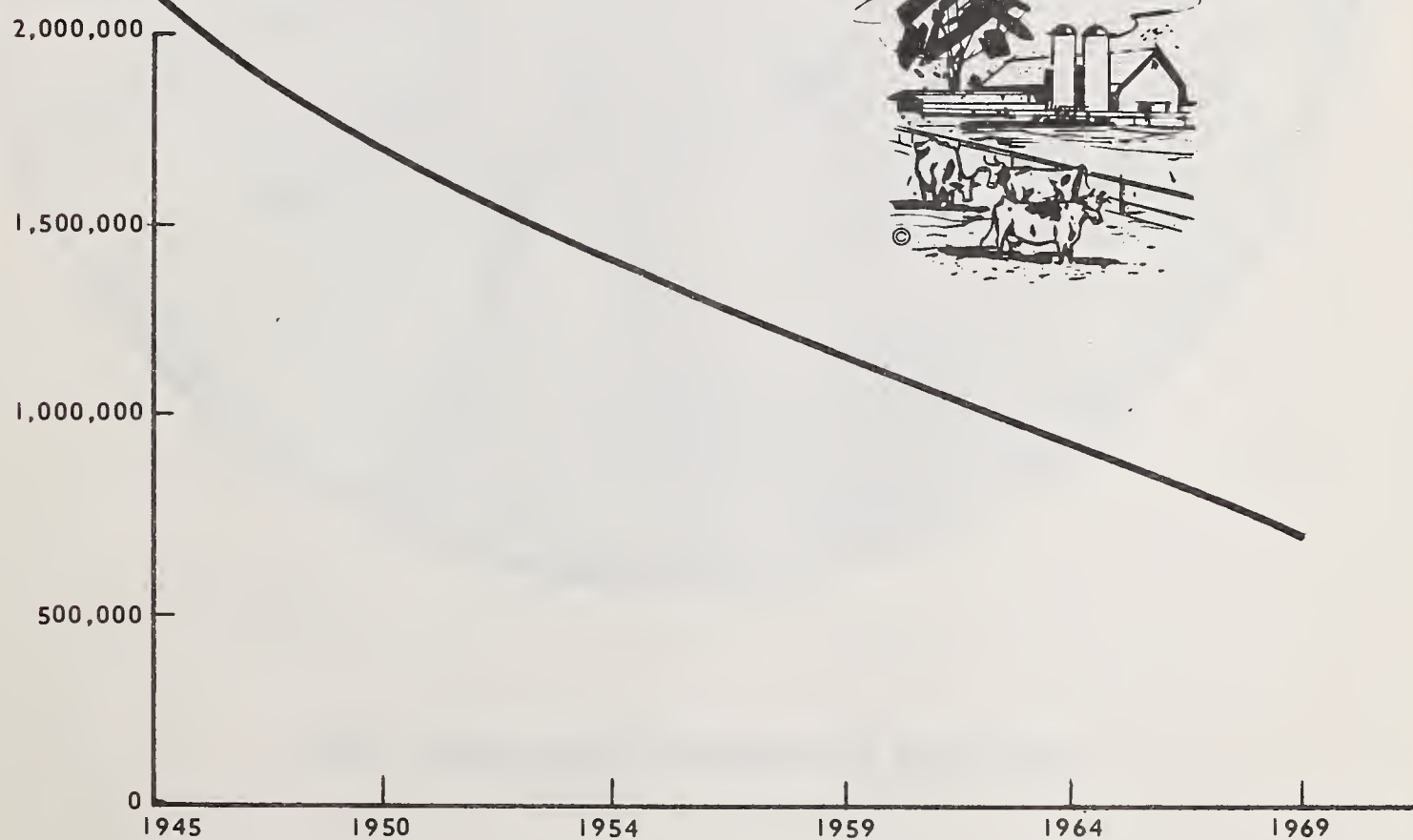
Figure 11

Number of Farms and Acreage in Farms in Massachusetts, 1945 to 1969

NUMBER OF FARMS



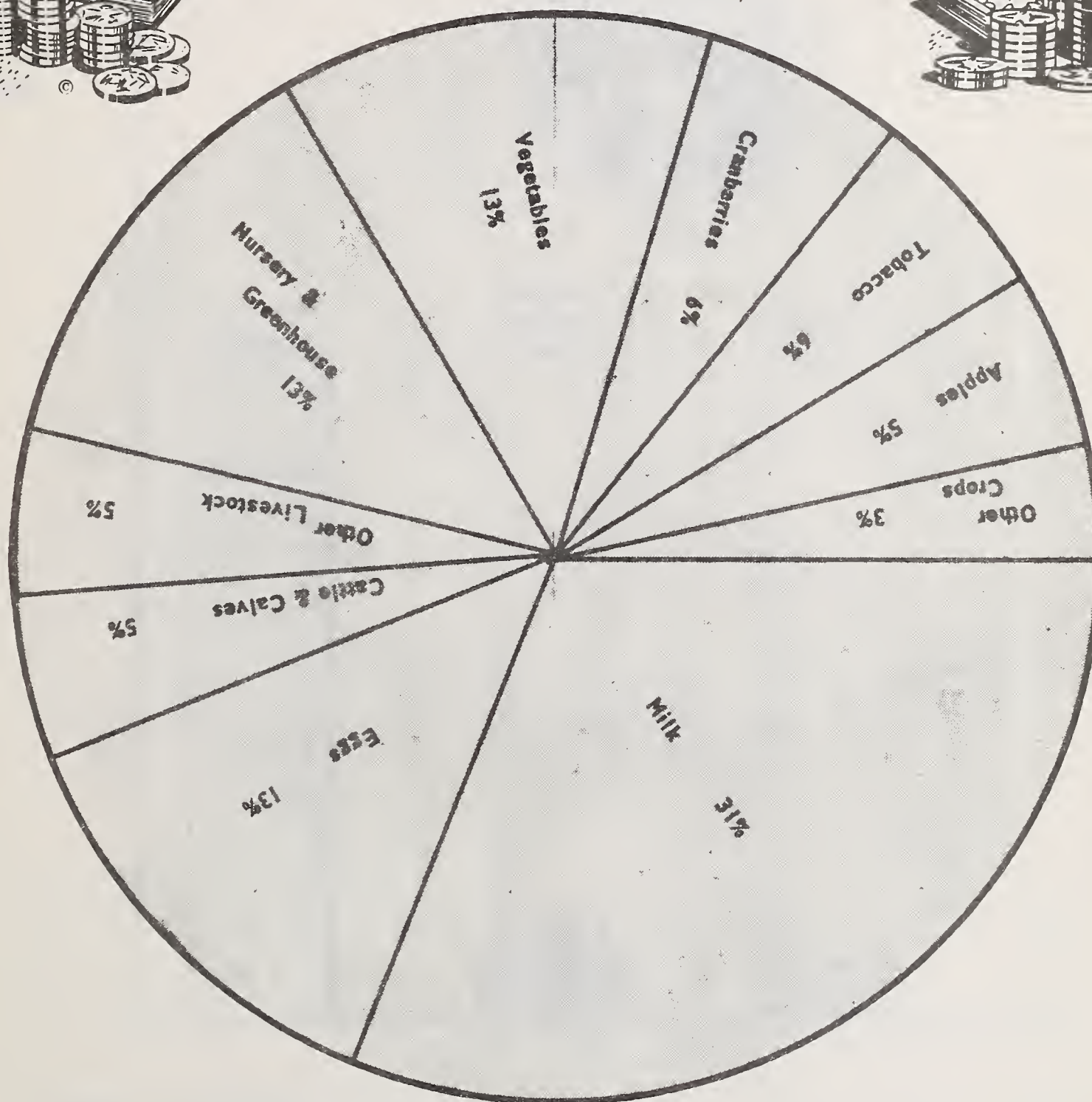
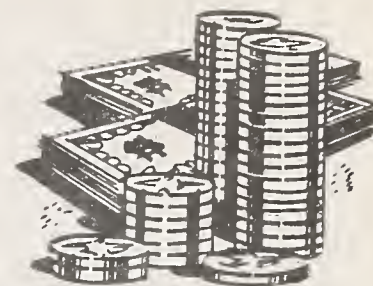
NUMBER OF ACRES



Source: Census of Agriculture

Figure 12

Cash Receipts from Farm Marketings in Massachusetts, 1972



Source: Massachusetts Department of Agriculture

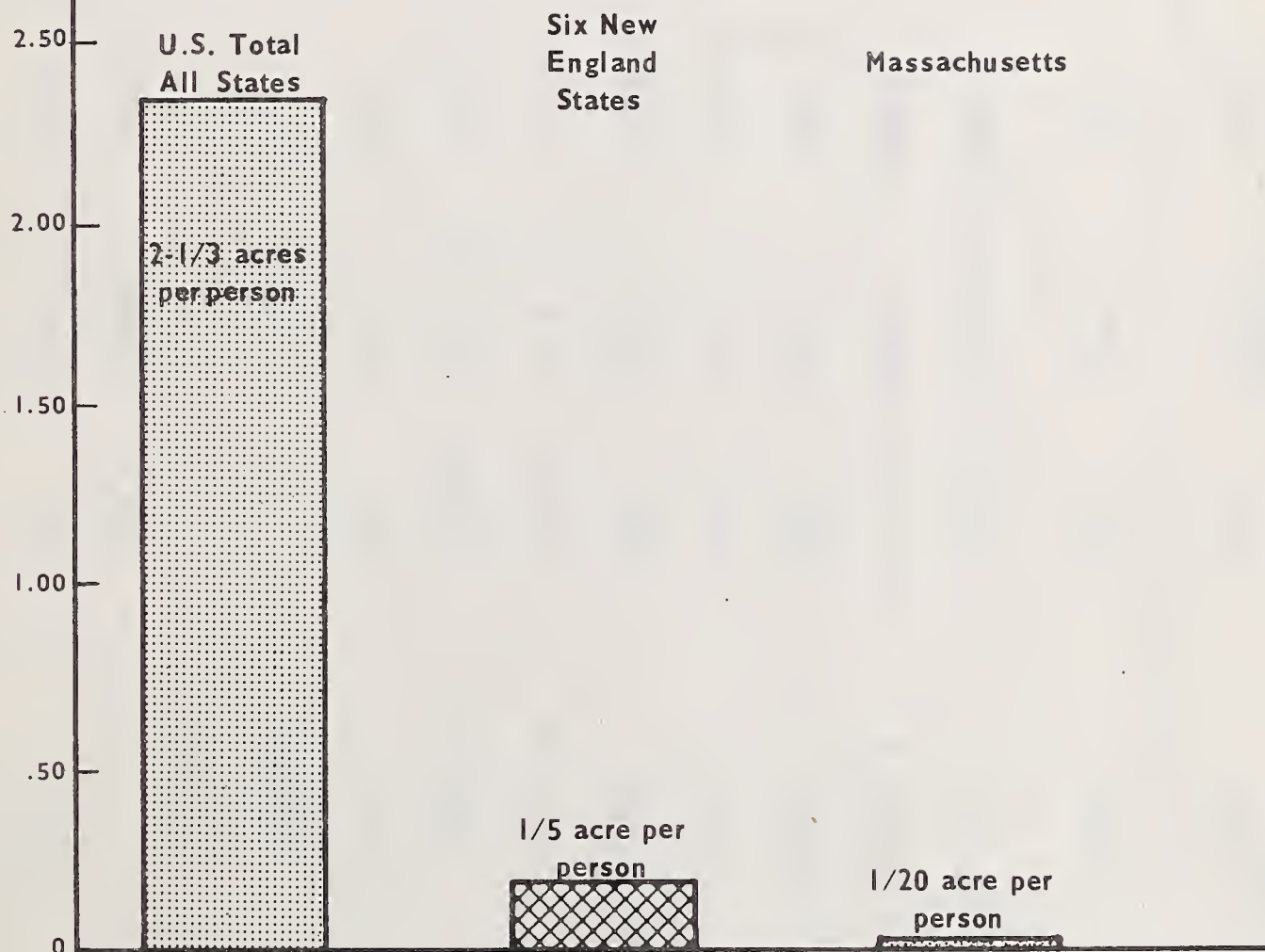
Figure 13

Acres of Cropland for each Person in the Population, 1969

Averages for Massachusetts, New England and the U.S.



Acres per
Capita



Source: U.S. Census

Figure 14

Crop and Livestock Production, Massachusetts

Commodity	1,000 units	Actual			Projected	
		1970	1971	1972	1980	1985
Silage, Corn	ton	512	544	352	311.2	300.7
Non-citrus Fruit & Nuts	ton	(1968-70 average 91.6)			70.8	72.2
All Vegetables	cwt.	(1968-70 average 1524.8)			1,696.1	1,650.5
All Hay	ton	239	241	205	155.5	139.0
Tobacco	lbs.	3,562	2,879	1,898	1,403.5	1,182.1
Irish Potatoes	cwt.	1,046	987	592	965.1	894.8
Cattle & Calves	lbs.	22,430	23,175	25,480	20,204	19,267
Hogs	lbs.	19,139	19,746	18,708	22,614	22,536
Sheep & Lambs	lbs.	356	365	345	191.2	170.9
Chickens	lbs.				9,383	8,637
Broilers	lbs.				4,952	4,164
Turkeys	lbs.	4,525	3,840	3,383		
Eggs	1000 eggs	521	513	535	371.4	336.7
Milk	1000 lbs.	658	658	628	688.4	670.3

Source: Economic Research Service, USDA.

There are more than 900,000 acres of land suitable for agriculture in Massachusetts of which only about a third was being used for crops or pasture in 1967 (Figure 15). According to aerial photographic surveys in 1951 and 1971 agricultural and open land was converted to urban and other uses at a rapid rate (Figure 16). If this trend continues, much of our best remaining agricultural land will be permanently lost as a resource for food production. The preservation of our best agricultural land and incentives to maintain and expand agricultural production will help to prevent our dependency upon other sources for food from becoming even greater.

Seafood is one of our most important food resources in Massachusetts. The annual catch of Atlantic groundfish is declining due to overfishing and the inefficiency of our fishing fleet compared with those of foreign nations. Without more effective control of the fishing effort and a more modern fleet, seafood supplies will decline and become relatively more expensive.

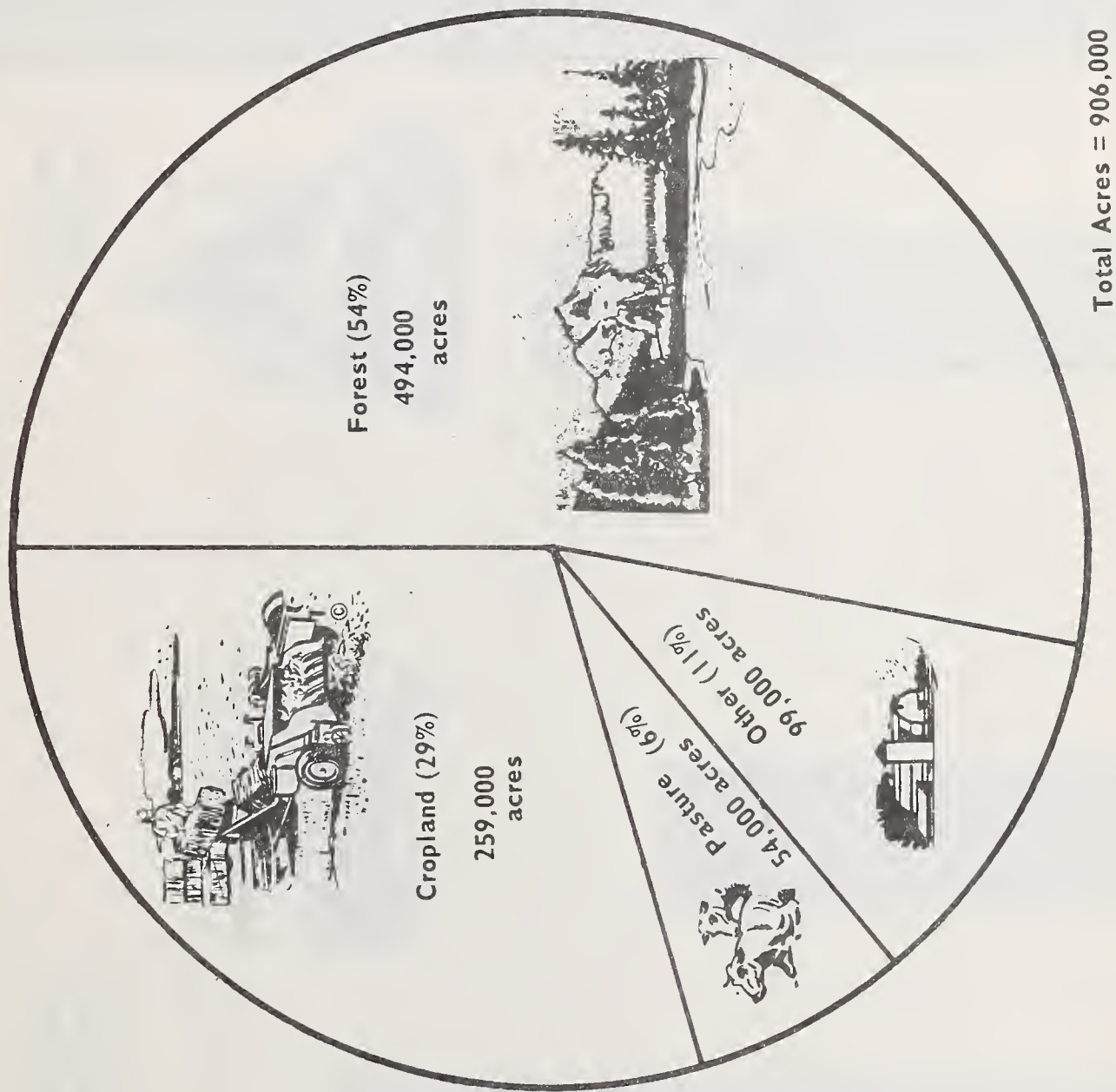
A potential new source of high protein seafood is through controlled propagation in our offshore waters.

Government

State government plays an important role in the food system in Massachusetts. Most of the executive offices have some responsibilities that relate to the production, marketing or consumption of food in the Commonwealth. However, there is no central accountability in state government for the coordination and implementation of policies and programs necessary for the food system to operate efficiently and equitably in providing a wholesome and dependable supply of food to Massachusetts' consumers.

Use of Agricultural Land in Massachusetts, 1967

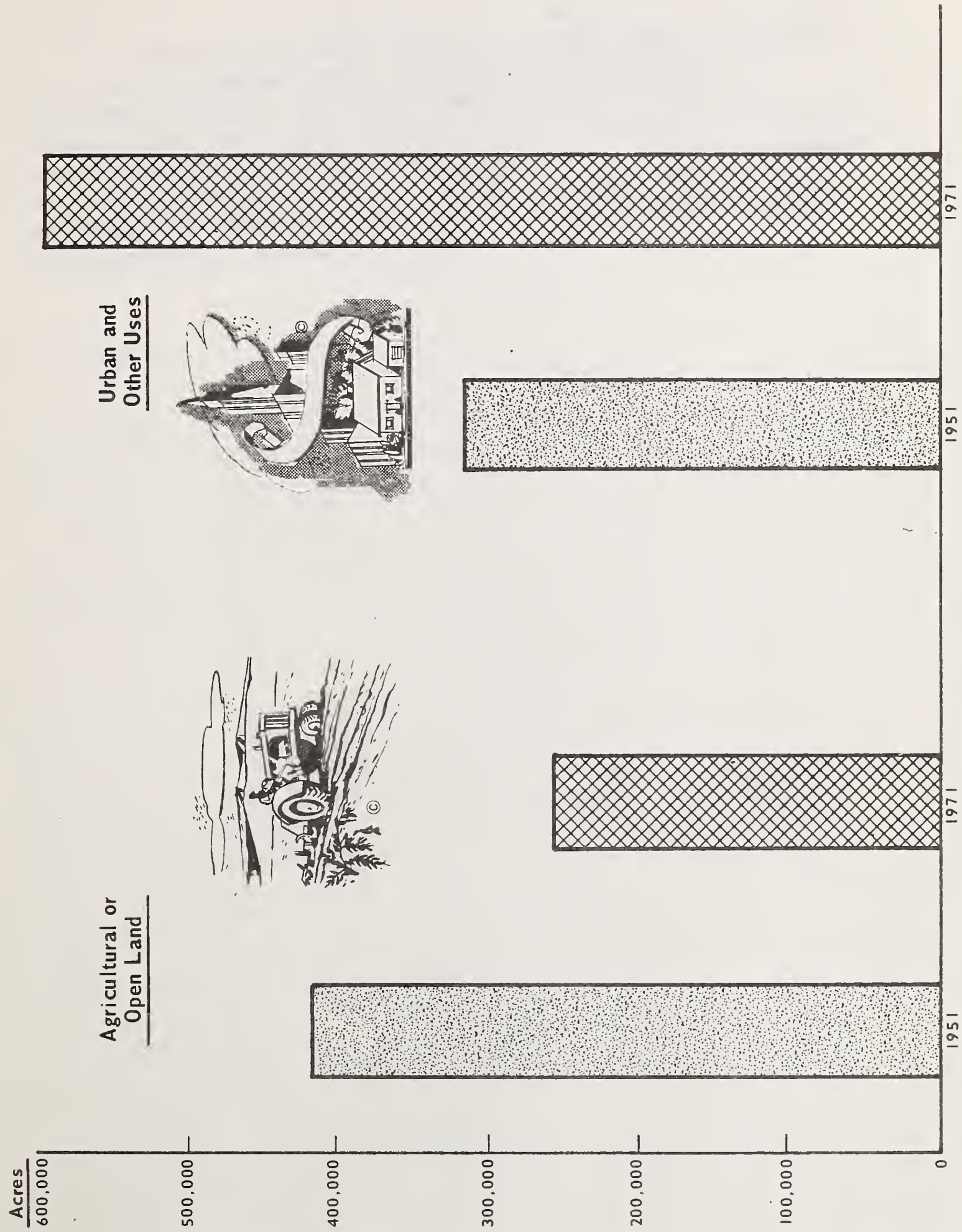
Capability Classes I, II and III



Source: Cooperative Extension Service and
Soil Conservation Service

Figure 15

Changes in Land Use in Seven Eastern Massachusetts Counties, 1951 to 1971



Source: Department of Forestry and Wildlife Management, University of Massachusetts

Figure 16

Central accountability in government is needed not only to assure that consumers will receive the greatest benefit from the food system but also to assure that the food system continues to be an important and viable part of the state's economy. This importance is illustrated in Figures 17 and 18 which show the annual sales and employment of the participants in the food system in Massachusetts.



FOOD AGRIBUSINESS EMPLOYMENT IN MASSACHUSETTS
(1973 Estimated)

Type of Business	No. of Firms	No. of Workers
Food Service	6,651	88,785
Retailing	3,068	62,528
Processing	716	33,721
Wholesaling	1,173	16,668
Farming	5,700	16,600
Fishing	2,996	7,900
Farm Supply	<u>255</u>	<u>1,254</u>
Food Total	20,559	227,456
STATE TOTAL	100,215	2,005,400 *
FOOD AGRIBUSINESS % of Total	21%	11%

* excludes government workers

Figure 18

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CHICAGO, ILLINOIS

1900

1901

1902

1903

1904

1905

1906

1907

1908

1909

1910

1911

1912

1913

1914

1915

1916

1917

1918

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